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# Improving small purchase operations at the National Naval Medical Center Bethesda, Maryland

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NAVAL POSTGRADUATE SCHOOL  
Monterey, California



THESIS

IMPROVING SMALL PURCHASE OPERATIONS  
AT THE NATIONAL NAVAL MEDICAL CENTER  
BETHESDA, MARYLAND

by

Gregory T. Kuhn

December, 1990

Thesis Co-Advisor: Rodney F. Matsushima  
Thesis Co-Advisor: Benjamin J. Roberts

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IMPROVING SMALL PURCHASE OPERATIONS  
AT THE NATIONAL NAVAL MEDICAL CENTER  
BETHESDA, MARYLAND

by

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Submitted in partial fulfillment  
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

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## ABSTRACT

This research was accomplished to perform a management problem analysis study of the Procurement Department at the National Naval Medical Center Bethesda, MD. The goal of this research was to develop an organizational plan to increase small purchase productivity, improve quality of purchase documentation and strengthen customer service through improved utilization of personnel resources, increased levels of training, increased utilization of efficient procurement techniques and automation.

Results of this research included recommendations for redesign of the Procurement Department's organizational structure and position classifications, a job specialization plan, and establishment of performance management measures. The study further developed a framework for an employee training plan. Recommendations for improvement to the Blanket Purchase Agreement system and increasing automation were also provided.

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## TABLE OF CONTENTS

I.	INTRODUCTION . . . . .	1
A.	PRIMARY RESEARCH QUESTION . . . . .	2
B.	SUBSIDIARY RESEARCH QUESTIONS . . . . .	2
C.	METHODOLOGIES . . . . .	3
II.	BACKGROUND . . . . .	5
A.	INTRODUCTION . . . . .	5
B.	ORGANIZATIONAL WEAKNESSES . . . . .	5
1.	Professional Series Designation . . . . .	6
2.	Buying Functions and Workload Distribution . . . . .	6
3.	Reference Materials . . . . .	7
4.	Goals and Priorities . . . . .	7
5.	Clerical Support . . . . .	7
6.	Supervision . . . . .	8
7.	Communications and Service . . . . .	8
8.	Training . . . . .	9
9.	Other Observations . . . . .	9
C.	PRODUCTIVITY MEASURES . . . . .	9
D.	ENHANCING PROFESSIONALISM . . . . .	11
E.	AUTOMATION STUDY . . . . .	16

F. AUTOMATION LITERATURE . . . . .	20
G. PROCUREMENT TECHNIQUES . . . . .	21
1. Purchase Order . . . . .	21
2. Delivery Order . . . . .	22
3. Imprest Funds . . . . .	22
4. Blanket Purchase Agreements (BPAs) . . . . .	22
5. Indefinite Delivery Type Contracts (IDTCs) . . . . .	23
6. Definite Quantity Contracts . . . . .	24
7. Requirements Contracts . . . . .	25
8. Indefinite Quantity Contracts . . . . .	25
H. POSITION MANAGEMENT CONCEPTS . . . . .	26
I. SUPERVISORS AND WORK LEADERS . . . . .	28
1. Work Leaders . . . . .	28
2. Supervisors . . . . .	30
3. Major Differences . . . . .	31
III. ANALYSIS OF PRESENT ORGANIZATION . . . . .	34
A. NATIONAL NAVAL MEDICAL CENTER MISSION . . . . .	34
B. PROCUREMENT RESPONSIBILITIES . . . . .	34
C. PROCUREMENT PROBLEMS . . . . .	35
D. PROBLEM DISCUSSION . . . . .	39
E. ORGANIZATIONAL OBSERVATIONS . . . . .	43
F. WORKLOAD MANAGEMENT . . . . .	47
G. AUTOMATION . . . . .	49



H. PROCUREMENT TECHNIQUES . . . . .	51
I. TRAINING . . . . .	51
J. SUMMARY . . . . .	52
IV. QUESTIONNAIRE . . . . .	54
A. INTRODUCTION . . . . .	54
B. DATA . . . . .	55
C. DATA ANALYSIS . . . . .	60
1. Small Purchase Supervisors . . . . .	61
2. Grade Levels of Small Purchase Agents (1105) . . . . .	61
3. Supervisor to Buyer Span of Control . . . . .	61
4. Percentage of Small Purchase Buyers That Are 1102s . . . . .	61
5. Work Leader to Purchasing Agent Span of Control . . . . .	62
6. Purchasing Agent to Procurement Clerk Ratio . . . . .	62
7. Organizational Location of Procurement Clerks . . . . .	62
8. Obligational Authority . . . . .	63
9. Average Number of Small Purchase Awards Placed Per Buyer Per Day . . . . .	63
10. Percentage of Awards by BPA Call . . . . .	63
11. Percentage of Awards Federal Supply Schedules. . . . .	64

12. Average Procurement Administrative Lead Time	64
13. Workload Management . . . . .	64
14. Criteria for Establishment of BPAs . . . .	64
15. Criteria for Establishment of IDTCs . . . .	64
16. Extent of Automation . . . . .	65
17. Customer Service Initiatives . . . . .	65
18. Productivity Initiatives . . . . .	65
19. Small Purchase Agent Training (1105s) . . .	65
20. Customer Training Provided by Medical Activities. . . . .	66
21. Performance Standards . . . . .	66
 V. PROBLEM ANALYSIS . . . . .	67
A. INTRODUCTION . . . . .	67
B. PROBLEM DEFINITION . . . . .	68
C. SPAN OF CONTROL AND PRODUCTION BOTTLENECKS . .	69
D. SUPERVISION . . . . .	74
E. JOB SPECIALIZATION AND WORKLOAD MANAGEMENT . .	75
1. Alternative I . . . . .	79
2. Alternative II . . . . .	81
3. Alternative III . . . . .	83
F. JOB SPECIALIZATION OF INDIVIDUAL PURCHASING AGENTS . . . . .	88

G. CURRENT TRAINING . . . . .	95
H. FUTURE TRAINING . . . . .	98
I. PERFORMANCE MANAGEMENT . . . . .	99
J. BLANKET PURCHASE AGREEMENT (BPA) PROGRAM . .	102
K. AUTOMATION . . . . .	105
VI. CONCLUSIONS AND RECOMMENDATIONS . . . . .	107
A. INTRODUCTION . . . . .	107
B. SUMMARY OF ANSWERS TO RESEARCH QUESTIONS . .	108
1. How Can Utilization of Personnel Resources be Improved? . . . . .	108
a. Redesigning the Organizational Structure of the Small Purchase Division. . . . .	108
b. Job Specialization and Workload Management . . . . .	110
c. Obligational Authority . . . . .	110
d. Performance Management . . . . .	111
2. What Levels of Employee Training Both Internal and External to the Department are Needed? . . . . .	111
3. Can More Efficient Purchasing Techniques Such as the Use of BPAs and IDTCs be More Extensively Used? . . . . .	112
4. Where Can Automation Be Introduced and What Types of Systems Exist? . . . . .	113

C. CONCLUSIONS . . . . .	114
1. Conclusion I . . . . .	114
2. Conclusion II . . . . .	114
3. Conclusion III . . . . .	115
4. Conclusion IV . . . . .	115
D. RECOMMENDATIONS . . . . .	115
1. Recommendation I . . . . .	115
2. Recommendation II . . . . .	116
3. Recommendation III . . . . .	116
4. Recommendation IV . . . . .	116
5. Recommendation V . . . . .	116
6. Recommendation VI . . . . .	116
7. Recommendation VII . . . . .	116
8. Recommendation VIII . . . . .	117
9. Recommendation IX . . . . .	117
10. Recommendation X . . . . .	117
11. Recommendation XI . . . . .	117
12. Recommendation XII . . . . .	117
APPENDIX A . . . . .	118
APPENDIX B . . . . .	127

LIST OF REFERENCES . . . . . 147

INITIAL DISTRIBUTION LIST. . . . . 150

## I. INTRODUCTION

Purchase under small purchase procedures is an important element of the federal acquisition process. Although large contracting efforts attract most of the local and national interest, small purchase procedures are the primary procurement method used to support an organization's day to day operations.

A small purchase is defined as the acquisition of any supply, non-personal service, or construction of which the aggregate amount does not exceed \$25,000. Annually, approximately 95% of all contracting actions awarded by the Department of Defense are awarded under small purchase procedures. [Ref. 1] Methods for making small purchases include purchase orders, blanket purchase agreements, and imprest funds. Placing delivery orders against Federal Supply Schedules and locally established indefinite delivery type contracts is also a function of small purchase buyers. [Ref. 1 p. 71]

Due to the high volume and low dollar values of small purchases, the current emphasis of field activities is on productivity, quality, and effective and efficient support of requiring/customer activities. This thesis will provide an

analysis of the overall small purchase operation at the National Naval Medical Center (NNMC), Bethesda, Maryland. A comparative analysis with other procurement activities will also be performed. The emphasis of the study will be on increasing productivity, improving quality of purchase documentation, and strengthening customer service and support, through the use of organizational design techniques, automation, training and increased use of efficient procurement techniques.

#### **A. PRIMARY RESEARCH QUESTION**

How can small purchase operations be improved at the National Naval Medical Center for increased productivity, improved quality of purchase documentation, and strengthened customer service?

#### **B. SUBSIDIARY RESEARCH QUESTIONS**

1. How can utilization of personnel resources be improved?
2. What levels of employee training both internal and external to the department are needed?
3. Can more efficient purchasing techniques such as the use of Blanket Purchase Agreements and Indefinite Delivery Type Contracts be more extensively used?
4. Where can automation be introduced and what types of systems exist?

### C. METHODOLOGIES

Three primary methodologies were employed in this thesis.

The first involved a literature search primarily consisting of master's theses completed by Naval Postgraduate School graduates. Literature included research of studies performed in the small purchase field. Subject areas included organizational weaknesses, productivity measurement, enhancing professionalism, efficient procurement techniques, and automation. Office of Personnel Management (OPM) position management techniques for organizational design and supervision were also researched.

The second methodology involved the researcher performing hands on research in the form of a managerial problem search within the Procurement Department at NNMC. This included interviews with the Director of Supply Management, the Head of the Procurement Department, supervisory personnel, purchasing agents, and customers. Observations of work flow and process were also accomplished.

The third methodology included the preparation and distribution of a detailed survey questionnaire to 15 Naval Supply Systems Command (NAVSUP) small purchase activities and six Naval Hospital purchasing departments. The purpose of this survey was to identify common trends in (1) organizational structure and staffing; (2) personnel productivity data; (3) performance measurements; (4) purchasing techniques; (5) automated systems, etc. Data



obtained was used for application toward solutions of problems identified in the first and second methodologies.

This thesis is organized into six chapters. Chapter II presents highlights of research studies in small purchase obtained through a literature search. Chapter III provides a background of problems being experienced by NNMCC's Procurement Department. Results and analysis of survey data are provided in Chapter IV. Chapter V includes a management analysis of the identified problems. Conclusions and Recommendations are provided in Chapter VI.

## **II. BACKGROUND**

### **A. INTRODUCTION**

Recent studies in the field of small purchase have placed major emphasis on organizational weaknesses, productivity measurement, enhancing professionalism, utilization of efficient procurement techniques, and application of automation. This chapter will highlight the results of the research performed in those subject areas. Position management concepts for organizational design and supervision will also be highlighted.

### **B. ORGANIZATIONAL WEAKNESSES**

In their master's thesis authors Kurt Huff and Randle Bales interviewed and surveyed small purchase agents and supervisors at various field purchasing activities and personnel of the Naval Supply Systems Command (NAVSUP) headquarters. Policy level personnel from the Federal Acquisition Institute, the General Services Administration and the Office of Federal Procurement Policy were also interviewed [Ref. 2]. Organizational weaknesses identified included: professional series designation, buying functions and workload distribution, reference materials, goals and

priorities, recognition, clerical support, supervision, communications and service, and training. [Ref. 2:p. 44]

### **1. Professional Series Designation**

Research performed by Huff and Bales indicated that functions for small purchase agents (1105 series) and contract specialists (1102 series) were not clearly defined or separated. Position descriptions did not adequately display a separation of functions while performance standards were inconsistent. Task assignments resulted in 1105 personnel performing 1102 functions and vice versa. This represented poor utilization of personnel resources and did not take full advantage of specific training.

[Ref. 2:p.45]

### **2. Buying Functions and Workload Distribution**

Activities surveyed indicated that workload was distributed in several different ways which included: complexity, commodity, customer, geolocation of vendors and assorted combinations. Complexity and commodity were the most popular. Research results, however, documented that complexity distribution (providing simple buys to specific agents and difficult buys to others) denied personnel growth opportunities, made rotation of solicitations and BPA calls more difficult, and hindered buyer ability to become familiar with vendors and products. Research further indicated that

organizations enjoying the highest level of buyer satisfaction were those organized by commodity. The most productive purchasing organizations encouraged maximum familiarity with specific product lines and sources.

[Ref. 2:p.47]

### **3. Reference Materials**

Many organizations lacked adequate quantities of the Federal Acquisition Regulation and supplementary publications. Guidance on the use of these regulations and receipt of current legislation also was lacking.

[Ref. 2:p. 47]

### **4. Goals and Priorities**

Surveyed personnel complained that goals and priorities changed rapidly and were inconsistent with the personnel evaluation system. Discrepancies documented through Procurement Management Reviews (PMRs) were not translated into specific goals. Performance standards placed major emphasis on volume of output with little attention to task nature and complexity. [Ref. 2:p. 49]

### **5. Clerical Support**

Clerical support functions were also considered to be a major organizational weakness. The majority of organizations placed the clerical function into a centralized "pool". Problems noted from this organizational arrangement included: insufficient number of typists, no clear priority

system, delays in typing and distribution resulting in increased backlog and Procurement Administrative Lead Time (PALT), and no clear work scheduling system. [Ref. 2:p. 52]

#### **6. Supervision**

Effective supervision was considered to be essential to the mission of the small purchase operation. Supervisors are expected to screen requests, prioritize work, recognize and reward subordinates, identify areas of need, eliminate redundancy, make available regulations and instructions, provide training, etc. Research indicated that these functions were not being performed or only being performed to a limited degree. Research also determined that supervisors require training in general management in addition to small purchase. [Ref. 2:pp. 53-54]

#### **7. Communications and Service**

Communication problems encountered included: unfamiliarity with vendors and products, unfamiliarity with customers, minimal contact up and down the supervisory chain and lack of supervisory awareness of buyer capabilities and weaknesses. A recommendation of this research indicated that barriers causing isolation must be broken down to ensure effective operations. A recommendation was made to create a policy statement indicating that purchasing personnel are employed to serve customers and that purchase requests are not annoyances but opportunities to serve. [Ref. 2:p. 55]

## **8. Training**

Most organizations surveyed indicated training problems included: insufficient time due to workload, training seldom directed toward problems or emerging issues, no specific course for supervisors, and a requirement for more concentration on PMR discrepancies. [Ref. 2:pp. 58-59]

## **9. Other Observations**

Huff and Bales also observed and concluded that:

- Significant weaknesses exist in small purchase organizational structures and practice.
- Lack of an effective career development program for small purchase personnel has negatively impacted performance in the field.
- Many PMR discrepancies can be eliminated by improving performance in a limited number of areas.
- Activities should concentrate on effective utilization of expertise while providing training and professional development through exposure to tasks of varying difficulty, and through job rotation. Buyers should be provided with the maximum opportunity to become familiar with sources and products.

[Ref. 2:pp. 44-61]

## **C. PRODUCTIVITY MEASURES**

Author Curtis Tucker performed an assessment of current purchasing productivity measurement systems in his master's thesis. This research focussed on measures used by both the government and private industry. He defined productivity as

the measure of how well an organization satisfies both its efficiency and effectiveness goals.

Purchasing efficiency considers how quickly and efficiently each buy is made. Orders placed per time, processing time, and backlog are considered efficiency measures. Effectiveness or buying proficiency is measured in terms of source reliability, product quality, prices paid, timeliness, and overall customer satisfaction.

Measures of organizational productivity common to both industry and the government included:

1. Buys per unit of time
2. Average buying time
3. Backlog measure
4. Total buys per buyer
5. Prices/costs
6. On-time delivery
7. Material quality/deficiency
8. Time for technical research
9. Customer satisfaction surveys

[Ref. 3]

Research indicated that government activities placed more emphasis on efficiency type measures such as: buys per unit time, average buying time and total buys per buyer. Industrial response indicated more of a balanced approach to measuring organizational productivity. Industry agreed that

all measures are important however, they are most concerned with on-time delivery and receipt of conforming material. The author also touched on the concept of automation. Perceived benefits of automation included:

1. Performance of repetitive administrative tasks.
2. Storage and rapid retrieval of data.
3. Performs evaluative and analytic tasks.
4. Replace manual document preparation.
5. Overall information management.

[Ref. 4]

Two other separate issues identified by the researcher were:

1. Productivity can be increased by identifying and removing road blocks. Laws and regulations and insufficient administrative support were two of the largest road blocks identified by the author.
2. Most industry purchasing groups were organized by commodity. [Ref. 3:p. 33]

Tucker concluded his study by stating that no one optimal system for productivity measurement exists and certain trade-offs in measurement categories must be determined by individual organizations. [Ref. 3:p. 77]

#### **D. ENHANCING PROFESSIONALISM**

In his master's thesis, Paul Rock highlighted a study conducted under the sponsorship of the Defense Systems



Management College (DSMC). The study involved representatives from all of the services and the Defense Logistics Agency. The final report was completed in December 1985 and was titled Acquisition Enhancement (ACE). ACE established training and experience requirements which were set forth in DOD Directive 5000.48, "Experience, Education, and Training Requirements for Personnel Assigned to Acquisition, Contracting, Quality Assurance, and Business Financial Management" 9 Dec 1986. [Ref. 5] Requirements are included in Table 1.

[Ref. 5:p. 50]

Education credentials differ with minimum educational requirements established by the Office of Personnel Management (OPM). Education credentials are therefore treated only as quality ranking factors in selection/promotion. [Ref. 5:p.49]

Another study was performed by Task Group Six, which consisted of specialists in procurement and other areas from various federal agencies. Established by the Office of Federal Procurement Policy in 1985, this group was tasked with developing guidance in establishing career management programs for procurement personnel. [Ref. 6]

TABLE 1

	Level I (GS-4/6)	Level II (GS-7/8)
Experience:	Fulfilled by an associate's degree or 2 years of responsible office or technical experience.	Five years of current and progressively responsible experience with at least one year at the GS-6 level or equivalent.
Training:	Defense Small Purchase	Defense Cost and Price Analysis
	and Defense Contract Administration	or Principles of Contract Pricing Management of Defense Acquisition Contracts (Advanced)
	or Management of Defense Acquisition Contracts (Basic)	or Advanced Contract Administration
Education:	Associate's degree or 64 semester hours of undergraduate work desired.	Same as Level I.

Task Group Six's recommendations included:

1. Elevating the GS-1105 series from clerical to technical.
2. Creation of agency-wide development plans for formal classroom and on the job training (OJT).
3. GS-1105s receive at least 120 hours of formal classroom training and 120 hours OJT during progression from entry level to GS-7.
4. Grade Structure: GS-5 (entry level)  
GS-6/7 (journey man)  
GS-8/9 (supervisory)  
GS-9 non-supervisory could be substantiated.
5. Agencies develop formal programs that support advancement within the 1105 series and career bridging to 1102 series.
6. Acknowledged DOD as a leader in automated procurement systems and recommended that it assist other agencies in this area.

[Ref. 6:pp. 39-44]

The President's Blue Ribbon Commission established in 1985 also made one recommendation with respect to small purchase buyers. The commission recommended that "DOD should establish upward mobility programs for purchasing agents and procurement clerks." [Ref. 7]

Rock also provided some statistical information for various categories based on a survey sent to 375 Army purchasing agents. Results included:

### Experience:

57% have greater than 5 years experience  
25% have 3 to 5 years experience  
18% have less than 3 years experience

[Ref. 8]

### Work Allocation

55% by commodity  
10% by complexity  
35% by other categories:  
    customer  
    dollar values  
    quantity  
    combination

[Ref. 8:p. 95]

### Top Three Motivators

1. Pay and benefits
2. Job challenge
3. Getting best for the U.S.

[Ref. 8:p.103]

### Top Three Rewards

1. Promotions
2. Pay increases
3. Training opportunities

[Ref. 8:p.102]

Rock concluded his study with the following  
recommendations:

1. Policy makers and activity personnel must continue with efforts to improve professionalism.

2. OPM should raise existing GS-1105 job classification and performance standards for both the 1105 and 1102 series.
3. Activities should implement proposed improvements such as career bridging and expanded grade structure.
4. Require an Associate's Degree for 1105s and place purchasing in the career program for acquisition and contract personnel.
5. Management should continue efforts to become more sensitive to the needs of its purchasing agents, especially in communication and training.

[Ref. 8:pp. 122-127]

#### **E. AUTOMATION STUDY**

A study on the impact of office automation was performed by Desiree Linson and Steven Barolift in their master's thesis. The authors focussed on the Standard Automated Contracting System (SACONS) and its effects on productivity and social factors in the small purchase environment. The study was performed at an unnamed army site and used the industrial engineering definition of productivity: the ratio of output divided by input. This definition indicates that as a measure of output increases or a measure of input required decreases, or a simultaneous combination occurs, the productivity ratio increases. Inputs considered by the researchers included mean staff size, and mean overtime. Outputs included mean number of purchase requests processed and Procurement Administrative Lead Time (PALT).

[Ref. 9]

Results of their study are summarized in Table 2.

[Ref. 9:p. 48]

Results of their research indicate that implementation of an automated system reduced inputs and increased outputs for the activity studied. Input reduction included a 5.98% decrease in number of personnel required and an 82.98% decrease in overtime hours. Increased outputs included a 5.74% increase in requisitions processed. PALT decreased by 33.47%, meaning requisitions were processed faster. This is considered as an increase in productivity.

[Ref. 9:pp. 49-52]

Social effects measured included a 15.24% decrease in sick leave. This implies a decrease in job stress and increased job satisfaction. The use of annual leave, however, increased by 31.52%. The researcher's did not view this as a decrease in productivity since output was higher, therefore creating more opportunities to use leave.

[Ref. 9:pp. 54-55]

Their study also documented cost implications related to automation. Results are shown in Table 3.

[Ref. 9:pp. 52-53]

The purchase cost of the specific system used was approximately \$500,000. Cost recovery of capital investment, therefore is approximately 2.19 years.

The researchers also documented that group cohesiveness and professionalism increased as a result of automation.

TABLE 2

	Before Automation	After Automation
Inputs		
Mean Staff Size	66.69	62.70
Std. Dev.	6.11	3.29
Mean Overtime per 2-week period	219.36	35.23
Std. Dev.	70.56	37.60
Mean Overtime per worker per 2-weeks	3.29	0.56
Std. Dev.	1.06	0.60
Outputs		
Mean Purchase Requests Processed	2736.23	2893.18
Std. Dev.	1131.03	702.42
PALT	31.52	20.97
Std. Dev.	33.67	28.85
Social Effects		
Mean Annual Leave	306.43	377.71
Std. Dev.	47.39	61.31
Mean Annual Leave per worker per 2-weeks	4.59	6.02
Std. Dev.	0.71	0.98
Mean Sick Leave	249.48	198.83
Std. Dev.	45.16	36.47
Mean Sick Leave per worker per 2-weeks	3.74	3.17
Std. Dev.	0.68	0.58

TABLE 3

Category	Annual Savings
Overtime	\$ 42,000
Administrative Supplies(paper, etc.)	8,000
Payroll	178,180
Total	\$228,180



Improvements included:

- Eliminated buyer/typist conflicts and accusations since buyers now performed all data entry for purchased requests.
- Supervisors can easily monitor workload assignments, individual buyer productivity and identify problems.
- More time exists for training.
- Purchase document quality improved as buyers were now totally responsible for purchase requests from start to finish.

[Ref. 9:pp. 55-57]

Researchers concluded that the introduction of the SACONS system for automated procurement increased productivity, improved social aspects of the work environment, provided a means for workload and performance monitoring, and increased time available for training.

[Ref. 9:pp. 59-61]

#### **F. AUTOMATION LITERATURE**

Literature was obtained on several automated procurement systems available to federal facilities. In addition to claimed increases in efficiency, decreases in Procurement Administrative Lead Time, reductions in overtime, access to status information, and savings in operating expenses, the literature documented several features attractive to small purchase operations.

These are summarized as follows:

- Electronic worksheets
- Consolidation of requests
- Price and vendor histories
- Automated award documents
- Bidder's mailing lists
- Status reports
- Award and production reports
- Procurement Administrative Lead Time measurement
- Performance reports by period or by individual buyer
- Supplier addresses
- Receiving and vendor reports
- Other customized reports

Automated systems appear to perform a myriad of functions currently performed manually and can produce reports of almost any nature.

#### **G. PROCUREMENT TECHNIQUES**

This section defines and explains procurement techniques available to small purchase personnel.

##### **1. Purchase Order**

An offer by the government to buy certain supplies or nonpersonal services from commercial sources upon specified terms and conditions, the aggregate amount of which does not

exceed \$25,000. Purchase orders are issued via the use of the DD Form 1155 award document. [Ref. 10]

## **2. Delivery Order**

An order for supplies or services placed against an established contract. Type I delivery orders are those placed against Federal Supply Schedule contracts. Type II delivery orders are those placed against locally established Indefinite Delivery Type Contracts. Delivery orders are also issued via the use of the DD Form 1155 award document. [Ref. 10]

## **3. Imprest Funds**

A cash fund from which small payments (not to exceed \$500) are made at the time purchase transactions occur. [Ref. 10]

## **4. Blanket Purchase Agreements (BPAs)**

Blanket Purchase Agreements (BPAs), when well managed, can improve productivity, competition, and customer service. The BPA allows purchasing agents or other designated staff individuals to place calls/orders with vendors who hold agreements. A purchase document is not required and the vendor will bill for all monthly transactions on one consolidated invoice. The BPA functions similar to a "charge account" and administrative costs are decreased by eliminating the need for separate purchase documents and separate invoices. In essence, the crux of the BPA is a consolidated monthly payment for individual purchases. [Ref. 11]

Competition requirements are satisfied by establishing BPAs with many suppliers capable of providing the supply or service.

BPA call authority is often given to customer activities. This is done to minimize response time by placing purchase authority closer to the originator of the requisition. This relieves the purchasing activity of repetitive small orders and allows concentration of effort on more complex buys. [Ref. 11] Monitoring and training of outside activities is required to ensure proper procedures are followed.

#### **5. Indefinite Delivery Type Contracts (IDTCs)**

Utilization of Indefinite Delivery Type Contracts (IDTCs) is a proven method for increasing efficiency and improving workload management. Effective utilization of IDTCs can:

- Reduce PALT
- Improve utilization of personnel resources
- Improve timeliness of deliveries
- Achieve competitive prices
- Reduce inventory levels and associated costs

What are IDTCs? Indefinite Delivery Type Contracts (IDTCs) are a family of contracts that provide a vehicle for ordering supplies or services for which the requirements for delivery and/or quantity are not firm and when negotiation or

advertising of each requirement when it becomes firm is not advantageous or feasible. Once the original contract is established, performance is obtained by issuing delivery orders against the contract. [Ref. 12] Three major types of IDTCs exist. They are:

- Definite Quantity Contracts
- Requirements Contracts
- Indefinite Quantity Contracts

#### **6. Definite Quantity Contracts**

This type of contract agrees upon a set amount of material or performance of services at specified locations over a set period of time. Specific times of performance, however, are not fixed. Orders are placed against the contract to determine delivery times. Prices are established in the original contract and can remain fixed for the specified time period. Price escalation or redetermination clauses can be incorporated if desired. This type of contract is best used when the activity knows exactly what quantity of supplies will be required to complete a specific project. Risk lies with the government, however, as a guaranteed quantity is determined in the initial agreement. [Ref. 11] The beauty of this contract type and the remaining IDTCs lies in the fact that the requirement is only competed once under formal contracting procedures. This eliminates long delays every time delivery is desired. It is also possible to guarantee a

firm fixed price over a long time period. This technique could produce intense price competition since industry is guaranteed a larger quantity of business over a potentially long period of time. The procuring activity will enjoy reduced delivery lead time as industry can plan for contract requirements.

#### **7. Requirements Contracts**

This contract type provides for obtaining "all" of the actual requirements for a specific item or service during an established contract period (generally one year with up to three option years). Essentially, the government guarantees the contractor all of the activity's demand during the period. During contract solicitation, potential bidders are provided with an estimated total quantity for the contract period. After initial contract establishment, delivery orders are issued to establish quantities, delivery times and locations. Funds are obligated when delivery orders are placed. Requirements contracts are best used for products with repetitive demand, undetermined total requirements, and for commercially available items. The activity will receive benefits as listed previously. This method is of least risk to the government as no guarantees are made. [Ref. 12]

#### **8. Indefinite Quantity Contracts**

This contract type provides for obtaining indefinite quantities of material at a firm fixed price during a

specified contract period. Firm minimum and maximum quantities must be established. This is a form of risk sharing as the government must guarantee a minimum level of business while the contractor must provide up to the maximum level. Funds to cover the minimum quantity must be obligated at contract inception. This type of contract is primarily used for recurring needs and commercially available material. The same advantages realized by the other IDTCs can also be achieved with this type. [Ref. 12]

In his master's thesis, Richard Speights developed an Automated Decision Support System to identify candidate items that could be placed on IDTCs. His study was performed at the Aviation Supply Office in Philadelphia, PA and results indicated that use of IDTCs could reduce overall activity Procurement Administrative Lead Time by 19%. [Ref. 13]

#### **H. POSITION MANAGEMENT CONCEPTS**

As established in the Secretary of the Navy (SECNAV) Instruction 12510.9, Position Management is the process of organizing and structuring positions within an organization to accomplish the mission with maximum economy, efficiency and productivity. [Ref. 14] Goals of position management are to:

1. Accomplish the organization's mission within acceptable time frames.

2. Use the best work methods and work flow.
3. Recruit qualified employees.
4. Utilize employees to their full capability.
5. Motivate employees to do their best work.
6. Organize a structure which provides opportunities for employee advancement.
7. Work within controls established by higher authority.
8. Comply with equal opportunity programs.

[Ref. 14]

Position management concepts apply to appropriated fund civilian positions and related military positions in integrated civilian-military organizations. All line managers are encouraged to:

1. Determine the optimum organizational structure which meets management needs.
2. Select specific segments from the organizational structure for immediate implementation.
3. Establish a long range plan for full implementation of the optimum organizational structure.
4. Determine approaches for planning and organizing work to achieve mission requirements. Economy, efficiency, and employee motivation and utilization must be considered.
5. Plan and modify structures to cope with change.

[Ref. 14]

Designing and structuring organizations that are both effective and economical is a major goal of the position



management program. Guidelines for structuring organizations include:

1. All work performed is essential.
2. The structure reflects a reasonable balance between economy and effectiveness.
3. The structure is sound from a personnel management viewpoint.
4. The structure promotes organizational communication, decision-making and responsiveness.
5. The structure is sound from a motivational viewpoint.
6. The structure considers customer requirements.

[Ref. 14]

In summary, organizational structures should be designed to contribute to economy, effectiveness, and efficiency. An organization's structure also effects decision-making, communications, and employee utilization, motivation and morale. The customer must be considered in the effective design of an organizational structure.

#### **I. SUPERVISORS AND WORK LEADERS**

Two types of position classifications are available to organizations to assist with workload management and mission accomplishment. They are the work leader and the supervisor. This section will discuss the responsibilities of these positions and the major differences between them.

## 1. Work Leaders

A work leader is defined as an employee who, as a regular and recurring part of his/her assignment, lead three or more employees in accomplishing work in clerical or other one-grade interval occupations in the General Schedule. Work leaders also perform non-supervisory work that is usually of the same kind and level as that done by the group leader.

[Ref. 15]

Work leaders are responsible to supervisors for ensuring work assignments of employees in the group are carried out. Responsibilities include:

1. Distribute, balance, and ensure accomplishment of workload.
2. Maintain status of workload and obtain assistance from supervisor on problems that may arise.
3. Maintain records of work accomplishment and prepare production reports.
4. Instruct employees on job techniques and maintain reference materials and written instructions.
5. Review completed work to ensure that supervisor's instructions on work sequence, procedures and deadlines have been met.
6. Report to supervisor on performance, progress, training, needs of employees and disciplinary problems.
7. Make recommendations to supervisor on promotions, reassignment and recognition.

[Ref. 15]

Work leaders essentially lead workers in the performance of their work. Workload distribution, monitoring progress, on

the job instruction, and liaison with the supervisor encompass the major functions of a work leader.

## **2. Supervisors**

A supervisor is defined as an individual whose primary purpose is to accomplish work through the direction of other people such as subordinate federal civil service employees, assigned military employees and others. Supervisors are responsible for the quality and quantity of work produced by those under their supervision. [Ref. 16] The following are typically supervisory responsibilities

- Plan, schedule, assign, and direct the work of others.
- Establish work priorities and deadlines.
- Determine material, equipment, supplies, and facilities needed.
- Explain work requirements, methods, and procedures as needed.
- Review work in progress or upon completion.
- Coordinate with representatives of other units concerning matters of work accomplishment, priorities, methods, and procedures.
- Attend meetings with parties interested in the work of the unit.
- Prepare workload and production reports, submitting them as necessary to higher level management.
- Inform higher level supervisor of anticipated vacancies, increase in workload, or other circumstances requiring replacements or additional staff.
- Interview candidates for positions in the work unit and make recommendations for appointments, promotions, or reassignments.

- Advise employees of the performance requirements of their positions and keep them informed individually of their progress in meeting the requirements.
- Give advice, counsel, or instruction to individual employees on both work and administrative matters.
- Prepare formal evaluation of employee performance or provide appraisals to be incorporated into formal evaluation.
- Effect minor disciplinary measures such as warnings and reprimands; recommend action in more serious cases.
- Counsel employees on work related matters.
- Control attendance and leave, typically including approval of sick and annual leave and vacation schedules.
- Hear and resolve complaints from employees, referring group grievances and the more serious complaints not resolved to higher level supervisor.
- Implement equal employment opportunity action plans. Implement provisions of award and incentive systems.
- Assure adherence to safety practices.
- Where labor-management agreements exist, deal with union stewards on matters involving supervisory responsibility.
- Plan and carry out the training and development of employees.

[Ref. 16]

As documented above, supervisory responsibilities involve all aspects effecting the organizational unit. Workload, performance, discipline, appraisals, representation and training programs all fall within the responsibility level of a supervisor.

### 3. Major Differences

A work leader is predominantly responsible for distributing and monitoring workload within the unit. This position reports to a unit supervisor and serves as a focal point for communicating supervisory guidance and employee needs. Work leaders also make recommendations on promotions, recognition and disciplinary problems. This position essentially serves as an assistant to the unit supervisor and carries out policies and directions.

A supervisor commands a broader level of responsibility than a work leader. The supervisor is ultimately responsible for the success of the unit including planning, scheduling and directing work, establishing priorities and deadlines, involvement in labor-management relations, implementation of equal opportunity programs, representing the unit with outside activities, etc. Personnel management responsibilities including interviewing, hiring, position management and disciplinary actions are also supervisory functions.



### **III. ANALYSIS OF PRESENT ORGANIZATION**

#### **A. NATIONAL NAVAL MEDICAL CENTER MISSION**

The National Naval Medical Center (NNMC) at Bethesda, Maryland is a 350-bed medical treatment facility responsible for the coordination of comprehensive and quality health care services for active duty service members and all other eligible beneficiaries. The National Naval Medical Center provides both inpatient and outpatient care ranging from basic primary health care to complex specialties including Neurosurgery, Cardio-Thoracic Surgery and Plastic Surgery. The NNMC is further responsible for Graduate Medical Education and contingency support at the USNS Comfort and other amphibious platforms.

#### **B. PROCUREMENT RESPONSIBILITIES**

The NNMC has been delegated \$25,000 open market procurement authority for purchase orders and Blanket Purchase Agreements. The NNMC is further authorized to perform imprest fund transactions and place delivery orders (Type I and Type II) up to limits specified in the various schedules and contracts. NNMC procures materiel and services including:

- Diagnostic and therapeutic medical and dental equipment
- Medical and dental consumable supplies
- Preventive and corrective maintenance service for government owned equipment
- Rental and lease of equipment
- Provisions
- Professional Medical Services

The Procurement Department not only supports the medical treatment facility, but also supports the Naval Dental Center (NDC), Naval Health Sciences Education and Training Command (NHSETC), Naval School of Health Sciences (NSHS), Naval Medical Research Institute (NMRI), Naval Medical Data Services Center (NMDSC), several branch clinics and other medical activities within the Washington, D.C. area.

#### **C. PROCUREMENT PROBLEMS**

The NNMC has a documented history of procurement problems culminating in an UNSATISFACTORY procurement management review rating in 1989 and a suspension of their procurement authority. The following is a summary of the Procurement Management Review (PMR) team's findings from reviews conducted between 1988-1990:

23 March 1988 MARGINAL Rating

- Purchase files contain insufficient information/approval of adequate funding prior to award.



- Several documented instances of anti-deficiency act violations
- Inadequate procedures for control of unpriced purchase orders.
- Several unfilled purchasing agent positions
- Transactions over \$2500 lack documentation of fair and reasonable pricing.
- Inadequate sole source documentation including justification missing entirely, key signatures absent, inappropriate sole source.
- Failure to set aside purchase orders under \$25K to small business
- Failure to document dissolution of small business--small purchase set asides.
- Failure to include appropriate clauses/provisions in specific purchase orders.
- Poor documentation of Federal Supply Schedule order pricing.
- Failure to perform modifications correctly.

[Ref. 17]

#### 7 March 1989 UNSATISFACTORY Rating

- Inadequate procedures for control of unpriced purchase orders. (REPEAT)
- Failure to document dissolution of small business--small purchase set asides. (REPEAT)
- Failure to issue modifications correctly. (REPEAT)
- Purchase descriptions are inadequate.
- Unclear separation of functions in BPA procurements.
- Improper ratification of unauthorized commitments.
- Poor screening for availability of supplies from mandatory government sources.

- BPA system problems including incomplete call records, callers not appointed as contracting officers, procurements not equally distributed.
- Incomplete purchase files.
- Poor documentation of mission essentiality on specific items.

[Ref. 18]

#### 7 March 1990 SATISFACTORY Rating

- Poor documentation of fair and reasonable pricing for transactions over \$2500. (REPEAT 3rd time)
- Failure to document dissolution of small business--small purchase set asides. (REPEAT 3rd time)
- Incomplete purchase files. (REPEAT)
- Poor BPA call documentation. (REPEAT)
- Poor screening for mandatory sources. (REPEAT)

[Ref. 19]

Although the NNMC received a reinstatement of their procurement authority and a satisfactory rating in 1990, the PMR report still identified serious documentation (quality) problems within the procurement department.

Productivity, (producing awards from requisitions), is also a long term problem for the NNMC. History indicates that at times routine supply requisitions may sit for over 60 days without action. In January 1990, the average Procurement Administrative Lead Time (PALT) was 24 days. A backlog of 1500 requisitions existed. This backlog would be considered as Work-In-Process (WIP) inventory in a manufacturing

production operation. Recognizing this situation, the department head initiated a program to correct these deficiencies. The procurement staff was placed on extensive overtime and temporary employees were hired to reduce the backlog. At a high personnel cost (increased operational expense) the backlog was reduced to 500 requisitions and PALT reduced to 15 days. This method solved the problem in the short term, however, it was at high expense and with no guarantee of a long term solution. Although procurement authority has been restored and the backlog reduced, both the Director of Supply Management and the Head of the Small Purchase Department at NNMC indicated that productivity, quality, and customer service problems continue to exist. Problems discussed during interviews and identified through personal observation included:

- Documentation and quality control are poor (indicated previously by PMR results).
- Productivity and work flow (processing requisitions and converting to awards) is extremely slow, currently averaging a PALT of 15-20 days.
- Interest payments are the highest within the Navy Medical Command claimancy.
- Position Descriptions are not current.
- Performance Standards are non-existent.
- Bottlenecks exist at Lead Purchasing Agent Desks.
- Some agents have worked for a week at a time without producing an award.

- Personnel lack definition and knowledge of the customer and customer needs.
- Moderate turnover exists due to personnel advancement and personal preference.
- Lack of networked automation effects workload, performance and report management.
- An unreasonably high number (80) of unauthorized commitments exist due to customer turnover, lack of a tracking program for rental and maintenance contracts, and vendor aggressiveness.
- Lack of people management at first level.
- Assignment of requisitions by volume, complexity, commodity and/or customer is inconsistent.
- Lack of mandatory customer education programs.
- Lack of clerical support.
- Lack of individual personal computers.

#### **D. PROBLEM DISCUSSION**

The Director of Supply Management had previously assessed the Procurement Department and indicated that a possible realignment or redesign of the departmental organizational structure may be needed to better support the mission. It was his feeling that structure and performance should be based on the principles of "ownership" thus assigning responsibilities to individuals for control of specific processes from beginning to end. [Ref. 20] Performance standards and measures of effectiveness standards should be established to evaluate employees. The Director also believes that clear and simple lines of authority are needed and that the

Assistant Department Head should be made more responsible for departmental operations.

As indicated previously, significant staffing shortfalls were identified by the PMR team in their 1988 review. A separate intensive staffing review was performed from May through August 1990 and it was determined that the Procurement Department would be increased to 34 civilian positions. Recruiting action is ongoing.

Accomplishment of work and performance management is another departmental problem area. Traditionally, organizations have established performance standards to serve as goals and personnel evaluation criteria. From the Assistant Department Head on down to the most recently hired clerk, no performance standards exist. This problem not only limits the supervisor's abilities to measure employees, but also does not provide managers performance measures for supervisors. This is a fundamental breakdown in the most basic management areas of mission establishment, goal setting, and performance measurement/evaluation. Essentially, there is no management criteria for objective performance evaluation.

Weaknesses also exist in the Customer Support Division's Technical Review function. This is the point where customer requisitions are entered into the data tracking system and undergo a technical review process. This technical review consists of screening the requested material for availability through mandatory sources as opposed to open market purchases.

Requests for material found to be available through the federal stock system, or through any other mandatory source of supply are returned to the customer for proper requisitioning. Under very few circumstances should requisitions ever be returned to requestors once they have reached a buyer. Unfortunately, many requests are being rejected and returned to originators by buyers who discover that the item is available through a mandatory source of supply. On many occasions, several weeks have passed prior to return of the requisitions. This is an unsatisfactory situation since it invariably upsets the customer and reduces the efficiency of the department.

On high priority requisitions, purchasing agents are placing "Confirming Orders", which means they place an order with a supplier over the telephone and confirm it by providing the vendor with a purchase order number and any other relevant information. Vendors ship material based on the phone call information without waiting for a hard copy of the purchase order. This method is extremely effective in obtaining fast delivery but ultimately leads to problems in receipt control and bill paying if the hard copy is not available. In many instances several weeks may pass before the purchase order/receipt document is typed, signed, and properly distributed. It is not uncommon for supplies and vendor invoices to be received yet payment procedures are held up because the official procurement document is missing. Large

delays in bill paying occur and as a result unnecessary interest payments are made as required by the Prompt Payment Act. On many occasions, duplicate shipments from vendors occur when purchase documents are received several weeks after the confirming order. This results in further receipt control and bill paying complications.

One past initiative to increase productivity vastly decreased the level of customer service. Buyers were isolated from customers in order to increase buyer time in placing orders and typing purchase documents. The customers' only interface with the Procurement Department was through the Customer Support Division who provided the latest status on requisitions. Nearly all customer-buyer communications were terminated. This initiative has severely inhibited each buyer's knowledge of customer needs and problems as well as knowledge of product applications and uses. This initiative also produced customer accusations such as "The Procurement Department is isolated, unresponsive, and lacks a customer service attitude."

In his report of 21 June 1990 [Ref. 21], the Navy Inspector General cited the following problems associated with NNMC procurement practices:

- Lack of service attitude
- Poor communications
- Supply corpsmen lack training and continuity

- Major delays in in-house medical repair support and establishment and responsiveness of commercial maintenance contracts
- Many routine supply purchases required time frames exceeding 90 days from date of request to date of receipt
- Critical delays in specific items

Information was obtained primarily through conversation between IG team members and health care providers (physicians, nurses, etc.).

#### **E. ORGANIZATIONAL OBSERVATIONS**

Figure 1 displays the current organizational chart. The Small Purchase Division will be the primary focus of this research.

The Lead Purchasing Agents (LPAs) are the keys to the success of the entire operation. Individuals in these positions are work leaders and can be equated to those of a foreman in a manufacturing operation. Incumbents serving in these roles have more effect on productivity, quality, and customer service than anyone else in the department. Through personal interview, the LPAs claimed that they are responsible for managing work, but have no personnel management abilities or responsibilities. One LPA indicated that he uses his "nerf" bat to motivate employees. He was indicating that he could request, demand, yell, threaten,



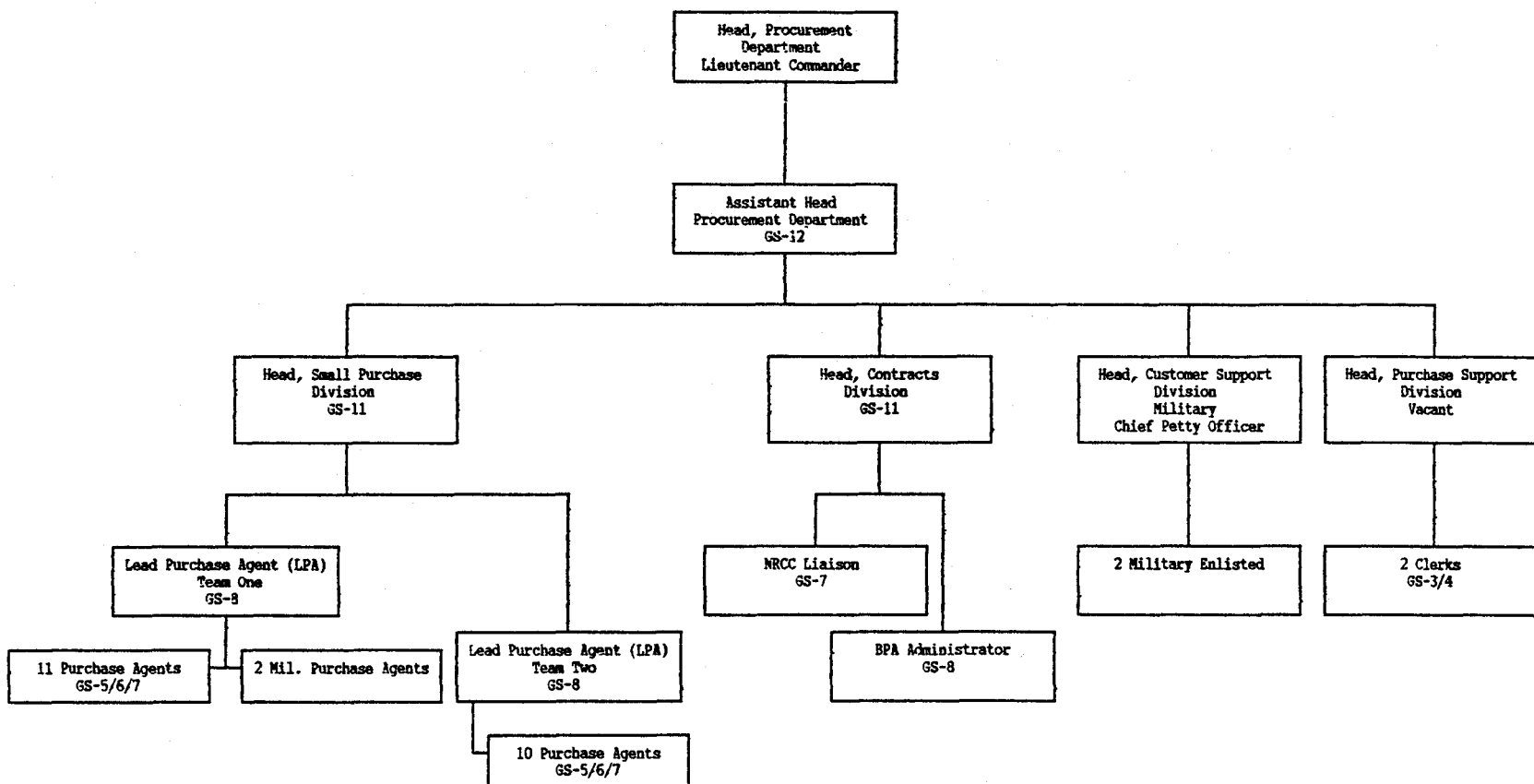


FIGURE 1

etc., but has no authority when it comes to performance management, evaluation, or disciplinary action.

Production "Bottlenecks" exist at the desks of the LPAs. A bottleneck is defined as any resource whose capacity is equal to or less than the demand placed upon it. [Ref. 22] The LPA for Team One, responsible for the work of thirteen agents, appeared to be the largest bottleneck as evidenced by stacks of unsigned purchase orders and undistributed requisitions. At this desk, several completed Priority 3 (Highest Urgency) purchase orders sat for two days awaiting signature. Other nonconfirming orders with lesser priorities sat for up to three weeks prior to mailing. This delay is unsatisfactory and must be improved especially since support of patient care is the mission. The LPA for Team Two did not appear to be experiencing as great of a backlog, however she indicated that work can pile up very quickly, thereby creating delays. When the Procurement Department is fully staffed and producing at maximum capacity, the future potential for major bottlenecks at both LPA positions is inevitable.

Why are bottlenecks occurring at these positions? To answer this question we must look at the LPA's workload. The LPAs' spans of control are thirteen buyers and ten buyers respectively. LPAs are responsible for signing and reviewing award documents and accompanying purchase file documentation produced by their respective buyers. LPAs also assign to

individual purchasing agents all incoming requisitions assigned to their teams. Furthermore, they must input data into the computer tracking program. This data includes the requisitions assigned to each purchasing agent, purchase order award information, required report data, and general workload management information. (The LPA for Team Two has been moderately successful in obtaining some data entry assistance from the sparsely staffed Purchase Support Division.) In addition to these tasks, LPAs are responsible for all day to day leadership, problem solving, and training within their teams. These tasks can be quite extensive when working in the environment of a large medical complex of elite specialists, research scientists, and other health care professionals having unique requirements and demands.

LPAs also are in the key position to control the quality of each output. Quality equates to accurately completed purchase orders and, most importantly, well documented purchase files. The Federal Acquisition Regulation (FAR) and supplementary regulations require that files be documented for the primary purpose of proving adequate management of public funds. As stated previously, poor or lack of documentation is a sure way to have an activity's procurement authority suspended. In the majority of purchases, the LPAs represent the final document quality control point in ensuring adequate documentation.

## F. WORKLOAD MANAGEMENT

Currently, the workload mix does not appear to be consistent when considering VOLUME, COMPLEXITY, COMMODITY, or CUSTOMER. The current system is organized as shown in Tables 4 and 5.

TABLE 4

### TEAM ONE RESPONSIBILITIES

- Base Operations Material
- Bio-Medical Repairs
- Carpets
- Dental Command
- Draperies
- Fire and Safety Items
- Food Service Consumables
- Fuel
- Furniture
- Office Decorations
- Pastoral Care Items
- Physical and Occupational Therapy Equipment
- Recreational Equipment
- Repair Services
- Repair Parts
- Security Items
- Central Processing Department (CPD)
- Bed Rentals
- Live Animals
- Maintenance Contracts
- Minor Equipment (All hospital areas)
- Naval Medical Research Institute
- Rentals
- Standing Orders
- Tuition Fees, Testing, Accreditations

TABLE 5

TEAM TWO RESPONSIBILITIES

Hospital Dental Department  
 Laboratory Consumables  
 Medical Consumables  
 Pharmaceuticals  
 Subsistence  
 Surgical Implants  
 Ophthalmology  
 Operating Room Items not in CPD  
 Medical Training Items  
 Orthopedics  
 Orthotics  
 Actors, Narrators and Scripts  
 ADP  
 Books, Subscriptions, Reprints  
 Clothing and Uniforms  
 Hotes/Motel Contracts  
 Lighting Materiel  
 Medical Gasses  
 Office Equipment  
 Office Supplies  
 Photographic Equipment for X-Ray and General  
 Rubber Stamps  
 X-ray Film and chemicals

A cursory analysis reveals obvious inconsistencies. First, some responsibilities are listed by area such as "Naval Medical Research Institute" and "Dental Command" while others are listed by commodity such as "Pharmaceuticals" or "Medical Consumables." Yet, other assignments are characterized by a generic nomenclature such as "Minor Equipment" or "Live Animals." Which team would be assigned a requirement from the Naval Medical Research Institute for a pharmaceutical to use on a live animal? This type of controversy appeared on four occasions during the author's two weeks of on-hand research.

Some individual buyers were assigned specific commodities while others received a myriad of different items to procure. It appeared that "pharmaceuticals" were delegated to two buyers who maintained total responsibility for the procurement of this commodity. In other areas, however, when the researcher attempted to obtain information on repetitiveness of requests for specific items, the information could not be provided since buyers were assigned requisitions as they arrived with no respect to commodity. For example, a buyer may procure lab consumables and office supplies this week and be required to buy dental supplies and training items next week.

Team responsibilities distribution had no statistical basis for assignment. The most equitable distribution of workload between the two teams is not guaranteed. No one could predict whether Team One would process more or less requisitions than Team Two. Some thought had been put into balancing the procurement complexity level of some of the commodities by attempting to equally distribute what were considered complex commodities between the two teams.

#### **G. AUTOMATION**

Some hard work has been done to establish a makeshift system to support procurement management. The Customer Service Division enters data upon receipt of requisitions in a data base. These requisitions are then sent to the small

purchase division where Lead Purchasing Agents enter requisition data into a second data base along with purchasing agent assignments. After award, the relevant data including purchase order number, vendor, etc., is added to the data base. Procurement activities are tasked with providing a semi-annual summary of purchase actions report. The award data for this report goes to a clerk who enters it into a third data base. The data bases are not networked, obviously causing a phenomenal duplication of effort and additional work to "marry up" the data bases for customer status printouts.

Purchasing agents generally share one terminal between two agents, although efforts are ongoing to have a one to one terminal to agent ratio. Agents utilize the terminals to input pertinent award information which results in the printing of a purchase order. This procedure is up to date with the industry trend and is effective, however, the pertinent data being typed in is not retrievable for effective use in generating management reports. No automated methods exist to provide historical data and potential source listings. Departmental personnel put great efforts into the use of computers to increase productivity, but the system is not well coordinated. Specific required automated reports include:

- Semi-Annual Report of Actions (1057)

- PALT Calculations
- Workload Assignment
- Productivity
- Customer Status
- Medical Local Purchase Report

#### **H. PROCUREMENT TECHNIQUES**

The NNMC BPA program has just recently been given priority attention by assigning an employee to be the BPA program administrator. Currently, NNMC has 442 established BPAs of which 238 have had calls placed against them during the period of April 1990 through September 1990. Only 83, however, had more than 10 calls during this period.

Currently, NNMC has one commodity under solicitation for an award of an IDTC.

#### **I. TRAINING**

The Procurement Department currently offers a monthly training course for customer supply representatives. The course covers basics in how to prepare requisitions, how to obtain funding, explanation of government and commercial supply sources, how to obtain status, and other system functions, however the course is not mandatory. No training currently exists to educate physicians and nurses on procurement operations, federal acquisition laws and regulations, and their roles in materiel acquisition.



External training requirements have been met since all agents have attended the Defense Small Purchase Course. New buyers, however, require more on-the-job training assistance from supervisory personnel. Supervisors and work leaders have not attended any recent training courses in management or supervision.

#### **J. SUMMARY**

Historical data indicates periods of large backlog of workload, poor purchase documentation which resulted in suspended procurement authority, and the lack of a service attitude toward customers.

Organizational observations determined needs for a strong personnel management program, a workload management program, alleviation of production bottlenecks, an automated system for data management, an overall training program, and increased emphasis on efficient purchasing techniques such as BPAs and IDTCs.



## IV. QUESTIONNAIRE

### A. INTRODUCTION

After performing background research, conducting interviews and making observations, the researcher concluded that improvements can be made in productivity, quality and customer service by addressing four major areas. These are:

1. Organization and Personnel
  - Structure
  - Staffing
  - Performance management
  - Workload management
2. Training
  - Customer
  - Formal courses for buyers
  - In-service training sessions for buyers
3. Procurement Techniques
  - BPA management systems
  - Utilization of IDTCs
4. Automation
  - Requisition tracking

- Reports and statistics
- Productivity
- Quality
- Social factors

In order to determine Navy procurement trends in these areas, a questionnaire was sent to 15 major Naval Supply Systems Command (NAVSUP) activities and six Naval Hospital procurement departments. The survey questions were designed to address the four major subject areas. The purpose of this chapter is to document and provide a comparative analysis between the survey results and the NNMC Procurement Department. A sample questionnaire is included in Appendix A.

## B. DATA

- \* Denotes an activity response
- + Denotes NNMC response

Grade levels of small purchase supervisors:

GS-13	*
GS-12	* *
GS-11	+ * * *
GS-9	* * * * *
GS-8	*
GS-7	* * *
GS-6	

Highest grade level of purchasing agents (GS-1105) per activity:

GS-9	*
------	---

GS-8	+
GS-7	* * * * *
GS-6	* * * * *
GS-5	*

Supervisor to buyer span of control:

1 to 3	
1 to 4	*
1 to 5	* *
1 to 6	* * *
1 to 7	* * *
1 to 8	* * *
1 to 9	*
1 to 10	*
1 to 12	*
1 to 19	*
1 to 23	+

Percentage of small purchase buyers that are contract specialists (GS-1102 series):

0%	+ * * * * *
1-10%	*
11-20%	*
21-30%	
31-40%	* *
41-50%	*
100%	*

Work leader to purchasing agent span of control:

No work leaders	* * * * *
1 to 3	
1 to 4	
1 to 5	* *
1 to 6	
1 to 7	*
1 to 8	*
1 to 9	
1 to 12	+

Purchasing Agent to procurement clerk ratio:

No clerks	* *
12 to 1	+
10 to 1	*
9 to 1	

8 to 1	*
7 to 1	*
6 to 1	*
5 to 1	* *
4 to 1	* * *
3 to 1	* * *
2 to 1	* *

#### Organizational location of procurement clerks

No clerks	* *
Centralized pool	+ * * * * *
Assigned to buying group	* * * * * *

Up to what dollar level do you allow supervisor's to sign purchase orders?

\$25,000	* * * * *
\$10,000	* +
\$ 2,500	*
Do not allow	*

Up to what dollar level do you allow senior buyers (GS-7 and above) to sign purchase orders?

\$25,000	*
\$10,000	* *
\$ 2,500	* * +
Do not allow	* * * * *

Up to what dollar level do you allow senior buyers to place BPA calls?

\$25,000	* * * * *
\$10,000	* * +
\$ 5,000	
\$ 2,500	* * *

Up to what dollar level do you allow junior buyers to place BPA calls?

\$25,000	* * * * *
\$10,000	* +
\$ 5,000	*
\$ 2,500	* * *

Average number of small purchase awards per buyer per day?

3	+	*
4	*	* *
5	*	
6	*	* * * *
7	*	
8	*	
9	*	
10		
11		
12		

Performance Standards

Production quantity standards	*	*	*	*				
Utilization of proper procurement method	*	*	*	*	*	*	*	
Adherence to purchase laws and regulations	*	*	*	*	*			
Quality of purchase file	*	*	*	*				
Accuracy of award document	*	*	*	*	*	*	*	*
Timeliness in request processing	*	*	*	*	*			

Percentage of awards by BPA call

0-10%							
11-20%	*						
21-30%	* * * *						
31-40%	+	*	*	*	*	*	*
41-50%	*						
51-60%							
over 60%	*						

Percentage of awards from Federal Supply schedules:

0-10%	*	*					
11-20%	+	*	*	*	*		
21-30%	*	*	*	*	*	*	*
31-40%							
41-50%							
51-60%							

What is your current Procurement Administrative Leadtime (PALT)?

0-5 days	* * * * *
6-10 days	*
11-15 days	
16-20 days	+ * *
21-25 days	
more than 25 days	*

How is workload assigned to purchasing agents?

By commodity	* * *
By commodity/customer mix	* * *
By commodity/complexity mix	* *
By customer	*
By complexity	* *
By customer/complexity mix	*
Randomly distributed	+ * *

Criteria for establishment of BPAs

Repetitive purchases	+ * * * * *
Customer request	* * * *
Vendor responsiveness	* *
Vendor request	* * *

Criteria for establishment of IDTCs

Repetitive purchases with annual requirements over \$25,000	* * * * *
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To what extent is your small purchase activity automated?

Manual system	* * *
Procurement clerk with terminal	* *
Partially automated system	+ * *
Completely automated system	* * * * *

What tools do you provide to customers to increase ease of access to your operation?

Personal visits	* * *
Computer terminals for direct requisitioning	* * *
Computer terminals for status	* * * * *
Status printouts	+ * * * * *



Guidebook	+ * * * * *
Newsletter	* * * * *
Training	* * * * *

What productivity initiatives have you implemented?

Automated procurement system	* * * * *
Increased levels of training	* * *
Reorganization of personnel and workload distribution	* * * *

What types of training have your purchasing agents (1105) received?

Defense small purchase course (DSPC)	* * * * * *
DSPC and Basic Contracts Mgt (Basic)	* * *
DSPC, Basic and Contract Administration	
DSPC, Basic and Cost/Price Analysis	* *

For medical procurement activities:

What type of customer training do you provide?

Formal mandatory training for supply representatives	* * * *
Formal non-mandatory training for supply representatives	+ *
Training for physicians and nurses	

### C. DATA ANALYSIS

It is evident from the data that many similarities as well as differences exist among the small purchase activities surveyed. This section will analyze the various categories researched by identifying the response range, keying in on

modal values and comparing NNMCs position with the activities surveyed.

#### **1. Small Purchase Supervisors**

Grade levels of small purchase supervisors ranged from GS-7 to GS-13, with a mode of GS-9. Supervisors at the GS-11 level and above were generally contract specialists (1102 series) and were employed at larger activities. NNMC's supervisor is a GS-11 (1105 series).

#### **2. Grade Levels of Small Purchase Agents (1105)**

Grade levels of small purchase agents ranged from GS-4 to GS-9 with the majority of activities identifying GS-7 as the highest grade level for non-supervisory buyers. NNMC's highest non-supervisory buyer was a GS-8 workleader. NNMC's highest non-workleader was a GS-7.

#### **3. Supervisor to Buyer Span of Control**

Supervisory span of control ranged from 1:4 to 1:19 with a of 1:6, 1:7, and 1:8 being most common. NNMC's supervisor/buyer span of control is 1:23. Activities comparable in size or larger than NNMC generally organized by using several buying teams with each headed by a supervisor which reduced the span of control.

#### **4. Percentage of Small Purchase Buyers That Are 1102s**

Activity responses ranged from utilizing no (0%) 1102s for small purchase to using a complete (100%) staff of 1102s.

The mode was 0%. NNMC does not employ contract specialists to perform small purchases.

#### **5. Work Leader to Purchasing Agent Span of Control**

Only four of the 21 surveyed activities employed work leaders to assist supervisors in workload management. Of these four, the span of control ranged from 1:5 to 1:8. In three of the four activities, one work leader performed directly under the supervisor with both directing the same group of agents. The remaining activity utilized two work leaders, each directing a team of buyers. Both work leaders reported to the same supervisor. NNMC utilizes two work leaders, directing teams of 10 and 13 buyers respectfully. Both work leaders also report to a supervisor.

#### **6. Purchasing Agent to Procurement Clerk Ratio**

For those activities utilizing clerks, this ratio ranged from 2:1 to 10:1 with a mode of 3:1. Two activities did not employ procurement clerks. NNMC's ratio was approximately 12:1.

#### **7. Organizational Location of Procurement Clerks**

Results were distributed between two categories. They were: (1) assigning clerks to a centralized pool and (2) assigning clerks to specific buying groups. Two activities did not employ procurement clerks. NNMC currently is organized with a centralized pool.

## **8. Obligational Authority**

The overwhelming majority of activities assigned the small purchase supervisor as the only one to sign purchase/delivery orders. Only two activities allowed senior buyers (GS-7 and above) to sign orders up to \$10,000, while two activities allowed all buyers to sign orders up to \$2,500. BPA call authority was somewhat diverse, however the trend was toward allowing most buyers to place calls of up to \$25,000.

NNMC's small purchase supervisor signs awards up to \$10,000. Lead purchasing agents (GS-8 work leaders) sign documents up to \$2,500. Awards over \$10,000 are signed by the Assistant Department Head.

## **9. Average Number of Small Purchase Awards Placed Per Buyer Per Day**

Total awards for a semi-annum were taken from the latest DD-1057) Summary of Actions Report and divided by the number of buyer workdays to determine results. Awards included purchase/delivery orders and BPA calls. Results ranged from three per day to nine per day with a mode of six per day. NNMC currently averages three per day per agent.

## **10. Percentage of Awards by BPA Call**

Data was also obtained from activity 1057 reports. Results ranged from less than 20% to over 60% with a modal

range of 31%-40%. NNMC currently reports 40% of awards via BPA.

**11. Percentage of Awards Federal Supply Schedules**

This data was also taken from activity 1057 reports. Results ranged from less than 10%, to 30%. NNMC reported approximately 25%.

**12. Average Procurement Administrative Lead Time**

Results ranged from 1.6 days to 28 days with a modal value ranging from zero to five days. NNMC currently averages 15 to 20 days.

**13. Workload Management**

Many methods of workload distribution and assignments were reported. Trends indicated that the majority of workload is assigned by commodity or a commodity related hybrid. NNMC has no clear designated method of workload management.

**14. Criteria for Establishment of BPAs**

The majority of activities reported that repetitive purchase is the primary reason for establishing BPAs.

**15. Criteria for Establishment of IDTCs**

Only six of the surveyed activities utilized IDTCs. All IDTCs were awarded at a level higher than the small purchase activity. The primary criteria for IDTC

establishment was repetitive purchases with aggregate annual requirements of over \$25,000.

**16.     Extent of Automation**

Response to this category ranged from manual systems (utilizing typewriters to type purchase orders) to completely automated procurement systems capable of creating purchasing documents, reports and various other outputs.

Data indicated that most NAVSUP activities had implemented fully automated systems while the majority of medical activities operated manually. NNMC has introduced some automation.

**17.     Customer Service Initiatives**

Customer guidebooks, newsletters, training and automated status provision methods were reported. NNMC provides status printouts and a customer guide.

**18.     Productivity Initiatives**

To improve productivity, activities surveyed indicated three major function of choice. These were (1) Automation, (2) Reorganization of Personnel Resources and Workload, and (3) Increasing Buyer Proficiency Through Training.

**19.     Small Purchase Agent Training (1105s)**

All activities reported that buyers had attended the Defense Small Purchase Course (DSPC). Only five had

identified sending buyers to additional courses in Management of Defense Contracts, Contract Administration, Cost/Price Analysis or Negotiation. NNMCM's buyers have all attended DSPC.

**20. Customer Training Provided by Medical Activities**

All medical activities responded that they offered a training session primarily for customer supply representatives and other interested personnel. Four activities reported mandatory training sessions while two indicated offering non-mandatory training. No activities reported offering training sessions specifically for physicians.

**21. Performance Standards**

Many criteria existed to measure performance of purchasing agents. The two most often used were (1) utilization of proper procurement method and (2) accuracy of award document.

## V. PROBLEM ANALYSIS

### A. INTRODUCTION

The most important function of the Purchasing Department is to satisfy hospital customers (physicians, nurses, patients) within the rules and regulations of government procurement. This can be met by achieving the following goals:

- Increasing Productivity - increasing the quantity of requisitions processed and awards made per given time period. This will minimize response time and ensure more timely delivery of needed supplies and services.
- Improving Quality - improving on the accuracy of individual award documents, improving documentation of purchase files, and adhering to established laws and regulations.
- Strengthening Customer Support - becoming more responsive to customer needs and problems, being more accessible to individual customers, gaining product and commodity knowledge, meeting delivery dates.

In order to meet the goals, an analysis of the identified problems inhibiting the efficiency of the procurement department is imperative. These problems are summarized as follows:

- Bottlenecks exist in the production process. This is directly related to an organizational structure that



requires too broad of a span of control for Lead Purchasing Agents.

- Quality of purchase documentation is inadequate as evidenced by PMR reports. This is due to a poor organizational structure and lack of training.
- Lead Purchasing Agents do not have full supervisory responsibilities resulting in weaknesses in performance, reward, disciplinary actions and overall unit responsibilities.
- The department lacks a performance management system.
- The current workload distribution system is not efficient.
- Poor communications with customers exist due to problems in organizational structure, workload management and past policies.
- Automated support is inadequate.
- Training programs for employees and customers are non-mandatory and should be made mandatory.

#### **B. PROBLEM DEFINITION**

The major problems experienced by the Procurement Department are a direct result of a poor organizational structure and related position management weaknesses. A program for organizational design must be implemented in accordance with OPM position management directives provided in Chapter II. The organizational design process will result in an organizational structure that provides an optimal supervisory span of control, eliminates production bottlenecks, and determines methods for job specialization and job enrichment. An organizational structure that encourages mission accomplishment, responsiveness, effective employee

utilization and motivation, and improved communications is required. This analysis will focus on the Small Purchase Division and the Purchase Support Division.

#### C. SPAN OF CONTROL AND PRODUCTION BOTTLENECKS

The current span of control for lead purchasing agents is entirely inconsistent with common management practices and industry trends.

The existence of bottlenecks, and poor purchase documentation were indicators that LPAs were overextended. In their text "Management" Stoner and Freeman indicate that certain guidelines exist to determine the span of control. These are: (1) situation (2) subordinates (3) manager. [Ref. 23]

The situation buyers find themselves in is that of a fast paced medical complex having specialists with great demands for the state of the art in medical supplies and equipment. The goal of obtaining the right product at the right price at the right time in the right place is more critical to a medical organization than any other business, since human life is the mission. This in itself can create a demanding environment. Add to this the statutory requirements of government procurement and the resulting situation that exists certainly borders on the complex. Purchase documentation must be perfect as NNMC can ill afford to lose its procurement authority again.

Subordinates are relatively inexperienced, averaging less than two years of government and medical procurement experience. This is significantly less than the industry average of five years documented in Chapter II. Their training has been limited to a course in Defense Small Purchase and what they receive on the job.

Managers include a Small Purchase Supervisor who has six years of government contracting experience but less than one year in the medical small purchase field. The LPAs average 3 years of medical small purchase each.

Data from the survey questionnaire provided in Chapter IV indicated that the most common span of control among government procurement activities was one supervisor to seven buyers (1 to 7). Work Leaders (LPAs) were seldom used.

Following consideration of situation, subordinate, management factors, and industry trends, the author concluded that the span of control for lead purchasing agents must be reduced in order to increase productivity, improve quality of documentation and strengthen customer support. By adding an additional lead purchasing agent and distributing remaining personnel resources equitably between three LPAs, a span of control of approximately 1 to 7 will result. This provides the LPAs with a much more manageable workload. LPAs can now place more concentration on reviewing purchase documents and files, provide on the job training and monitor workload within their areas of responsibility.

Decreasing the span of control for LPAs is further recommended since it will contribute directly to the elimination of bottlenecks and result in increased productivity.

When attempting to improve productivity, production oriented operations, analyze three key indicators. [Ref. 21] They are:

- Increasing throughput
- Reducing inventory
- Reducing operational expense

In this case, throughput represents the rate at which the Purchasing Department generates awards from requisitions. Inventory can be equated to stacks of unsigned purchase/delivery orders and unprocessed requisitions. Operational expense can be defined as personnel, equipment, supply and other costs related to producing small purchase awards.

The data previously provided indicates that NNMC is not as productive as it can be. Questionnaire results indicated that purchasing agents average less daily throughput per person than that of other similar procurement operations. The mode number of awards per buyer per day of activities surveyed was six. NNMC has been averaging less than three.

Large stacks of unprocessed requisitions and unsigned purchase/delivery orders also exist on LPA desks, thus resulting in bottlenecks. In their book, "The Goal", authors, Goldratt and Cox offer four solutions to relieving bottlenecks. These are:

1. Work on those items that will contribute to throughput today
2. Remove the "Load" from bottlenecks and provide to non-bottlenecks
3. Utilize more resources to perform the functions of the bottleneck
4. Utilize outside sources to perform the function of the bottleneck

[Ref. 22]

By adding a third LPA and reassigning a portion of personnel resources to this person, an additional resource (third LPA) is utilized to perform the functions of the bottlenecks and a portion of workload (responsibility for work of up to 13 buyers) has been removed from the bottlenecks, therefore incorporating Solutions #2 and #3.

The researcher further recommends that procurement clerks be assigned to support the LPAs. This is a second implementation of Solution #3. Three procurement clerk positions can be added by utilizing existing resources. This is accomplished by reassigning the two clerks from the Purchase Support Division and by reclassifying one of the buyer positions. This restructuring will abolish the Purchase

Support Division altogether. Procurement clerks will assume data entry functions currently performed by the LPAs and will perform document distribution and related clerical functions specific to their assigned team.

By restructuring and narrowing the span of control, the LPA responsibility level for Team One (where the largest bottleneck existed) has been significantly reduced by approximately 50%. This position is now responsible for seven buyers and has a clerk to perform clerical functions. The LPA for Team Two should also have a reduced responsibility level of approximately 30%. Bottlenecks should be completely eliminated.

The author recognizes that two potential full-time purchasing agent positions have been eliminated in favor of a lead agent and a clerk, but it is believed that the proposed organization allows LPAs to focus more attention on the needs of individual buyers especially in the areas of training and performance. Overall productivity, and quality will improve as a result. Morale and motivation should improve since an additional LPA position equates to an opportunity for promotion and leadership opportunities.

Benefits are gained by assigning clerks directly to LPAs. Clerks will become directly accountable to an organizational unit and will be given specific measurable assignments allowing for performance monitoring and evaluation. This concept improves upon utilizing a typing pool since documents

are maintained within the unit and are trackable by the supervisor. Clerks will benefit by receiving direct training and will have an opportunity to gain skills leading to advancement to the position of purchasing agent.

A smaller span of control coupled with direct clerical support will eliminate bottlenecks and provide more time for LPA monitoring of purchase documentation. Productivity and quality will be enhanced.

#### D. SUPERVISION

To maintain a program seeking mission accomplishment individuals serving in the LPA positions require broader responsibilities. These individuals need to be provided with a direct role and responsibility for the success of their unit. Opportunities to interview, hire, reward and discipline are necessary for mission accomplishment. Incumbents need to represent their units to outside activities and customers. These requirements fall within the responsibilities of a supervisor as documented in Chapter II. Furthermore, it is impossible for the Head of the Small Purchase Division to be responsible for the effective supervision of 27 employees. Questionnaire results indicated that the most common supervisor to buyer ratios were 1:6, 1:7, and 1:8.

Reclassifying these positions as supervisors provides job enrichment, autonomy, and greater opportunity for job satisfaction for incumbents and offers a potential promotional

opportunity for subordinates. Motivation and morale should increase. Based on all the facts, the researcher concludes that LPA positions should be reclassified from work leader of a buying team to supervisor of a purchasing branch.

The proposed organizational structure incorporates span of control realignment, clerical reassignment and supervisory reclassification. Figure II displays the recommendation in organizational format.

#### **E. JOB SPECIALIZATION AND WORKLOAD MANAGEMENT**

The researcher analyzed the workload management categories (provided in Chapter III) currently employed by the NNMC. It was determined that these categories could be reduced to the following commodities:

- Medical items\*
- Surgical items\*
- Dental items\*
- Pharmaceuticals
- Laboratory items\*
- Radiology and photographic items\*
- Food service items\* (includes subsistence)
- Medical training items \*



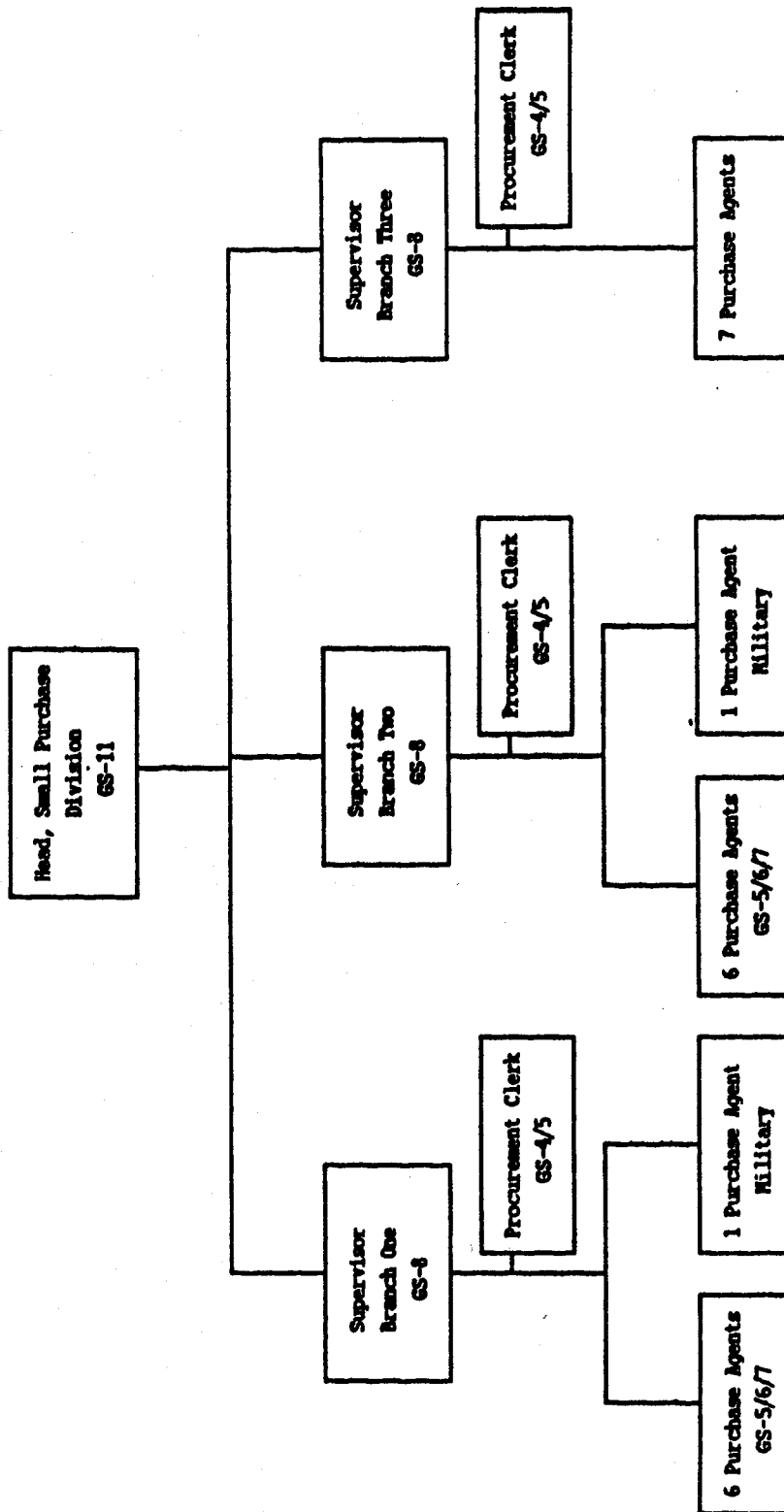


FIGURE 2

- Physical and occupational therapy items
- Research items\*
- ADP items\*
- Office equipment
- Office products (furniture, carpet, draperies, etc.)
- Maintenance contracts
- Rentals and leases
- Repairs (parts and services)
- Safety and security items
- Administrative and base operations material (fuel, facilities, etc.)
- Academic and public affairs (books, subscriptions, reprints, actors, narrators, scripts, hotel/motel contracts)
- Other non-medical
- Clothing and uniforms

\*Items included consumables, durables, instruments and equipment.

The recommended organizational structure (Figure 2) was certainly designed so that the Small Purchase Division could function as a commodity/customer organization similar to the product/market organization of certain manufacturing companies. The researcher recommends that implementation of division of work and job specialization programs within this structure will lead to higher productivity and improved customer service.

Job specialization is defined as the division of work into standardized, simplified tasks. [Ref. 23:p. 262] By implementing a program of job specialization within the Small Purchase Division, each branch can concentrate on a narrower focus and individual purchasing agents will acquire skills and knowledge in specific areas of procurement. Expertise in specific product lines, vendors, purchase techniques and customer needs can be achieved in a shorter period of time, thus resulting in increased productivity, better process quality and improved customer service.

It is the researcher's opinion that employee motivation, self-worth and feeling of organizational importance will improve under job specialization. Individuals will gain identity as integral members of the NNMCs health care team. By being assigned specific product lines, employees will play a direct role in the success or failure of customer departments utilizing the specific items.

Procurement research conducted by Huff and Bales in their graduate thesis indicated that the most productive purchasing organizations encouraged maximum familiarity with specific product lines and sources. [Ref. 2] Their research also indicated that the organizations enjoying the highest level of buyer satisfaction were those organized by commodity. [Ref. 2] Data provided in Chapter IV of this

thesis also indicated a trend toward commodity organization over other potential alternatives.

Although no quantitative data was obtained to support an equitable distribution of workload between branches, LPAs were consulted to determine volume and complexity levels of commodities based on experience. Several organizational structures were considered. The following section will discuss alternative structures and workload distribution plans.

#### **1. Alternative I**

Alternative I is displayed in Figure 3. In this structure, the Medical/Surgical Support Branch will be assigned commodities that are related to direct patient care in both the inpatient and outpatient setting. The Ancillary Support Branch will focus on commodities related to health care support while the Administrative Support Branch has responsibilities for all non-medical commodities.

The advantages to be derived from this organizational structure/workload management plan include:

- Narrows commodity responsibility for each branch which will result in obtaining knowledge of a narrower group of products much faster.
- Increases awareness of the customer served by matching commodity lines with specific customers.
- Promotes familiarity with vendors specializing in specific product lines.

Head, Small Purchase  
Division  
GS-11

Supervisor  
Medical/Surgical Support  
Branch  
GS-8/9

- Medical Items
- Surgical Items

For Med/Surg Equipment

- Maintenance Contracts
- Repair Services & Parts
- Rental/Leases

Supervisor  
Ancillary Support Branch  
GS-8/9

- Ancillary Service Items to include:

- Pharmaceuticals
- Laboratory Items
- Radiology Items
- Physical & Occupational Therapy Items
- Other Ancillary Service Items

- Research Items
- Dental Items
- Food MGT & Subsistence
- Clothing & Uniforms
- Medical Training Devices

For Ancillary SVCS Equipment

- Maintenance Contracts
- Repair Services
- Rentals/Leases

Supervisor  
Administrative Support  
Branch  
GS-8/9

- ADP Items
- OFC Equipment
- OFC Products
- Safety/Security
- Base OPS/Facilities
- Academic & Public Affairs
- Administrative Supplies & Other Non-medical

For Administrative Support Equipment

- Maintenance Contracts
- Repair Services & Parts
- Rentals/Leases

Figure 3. Commodity/Customer Organization

- Provides for branch-customer identity in the Medical/Surgical Branch and the Ancillary Branch.
- Provides a better framework for identifying candidate product lines for BPA or IDTC programs.
- Provides balanced complexity, volume and work flow between branches.
- Buyer visibility is increased.
- Structure is adaptable to change.
- Facilitates training.

Disadvantages include:

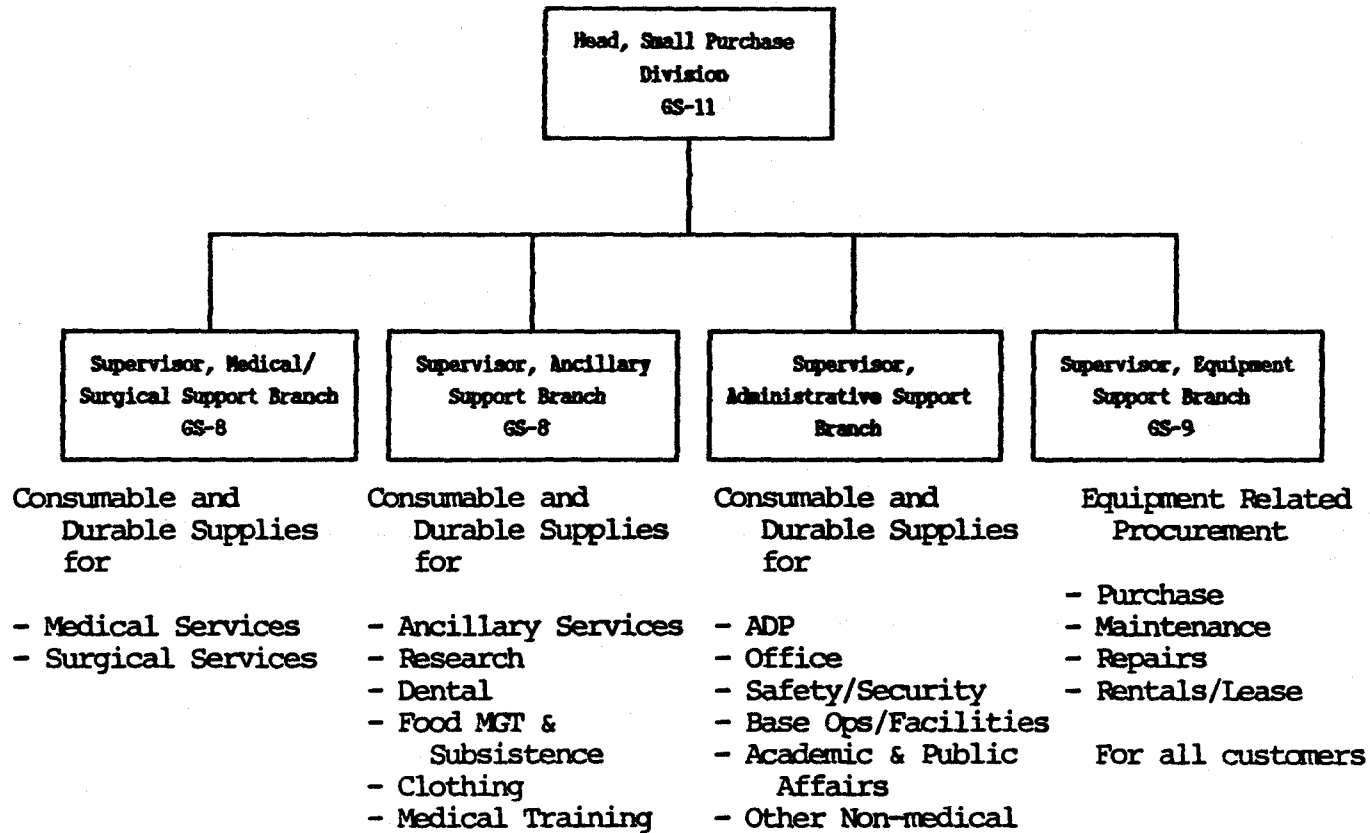
- Complex equipment procurement functions are assigned to all three branches creating a need for duplication of skills and knowledge in equipment related procurement.
- The Administrative Purchasing Branch is strictly commodity oriented with an unlimited customer base. Clinical customers will be required to interact with an entirely separate group of buyers for administrative material.
- Branch medical clinics within the national capital area will not experience a direct branch-customer relationship as their requests will be distributed by commodity. Customers from these activities will be required to interact with many different buyers.

## 2. Alternative II

Alternative II, displayed in Figure 4, is similar to Alternative I, however all equipment procurement functions have been placed in a separate branch. Advantages to this structure include:

- Equipment Branch provides a focal point for the coordination of all equipment functions
- Provides for best communications with the NNMCs Equipment Management Department

Figure 4. Commodity/Complexity Organization



- Makes one branch responsible for management of maintenance contracts and rentals which should result in eliminating unauthorized commitments for these commodities
- Narrows commodity responsibility for each branch
- Eliminates duplication of effort

Disadvantages include:

- Requires assignment of a supervisor and clerk which reduces the number of full time buyers
- Complexity of equipment procurements would dictate assignment of senior purchasing agents (GS-7). The other branches would lose the benefits of their expertise and experience.
- The Equipment Support Branch would experience high fluctuation in workload due to one-time allocations of equipment funding and establishment of all maintenance contracts at the beginning of the fiscal year.
- Junior buyers (GS-05/06) in the other branches would not receive opportunities to make some equipment purchases as part of their development plan.

### 3. Alternative III

Alternative III, Figure 5, provides for direct branch-customer relations. Branches would be responsible to customers for complete support of all commodities. For example, the Medical/Surgical/Nursing Directorates Support Branch would not only procure patient care items, but ADP equipment, office furniture, academic and public affairs, etc.

Advantages include:

- Direct branch-customer relationships which provide customers with the feeling of having their "own" buyer for all products and vice versa.



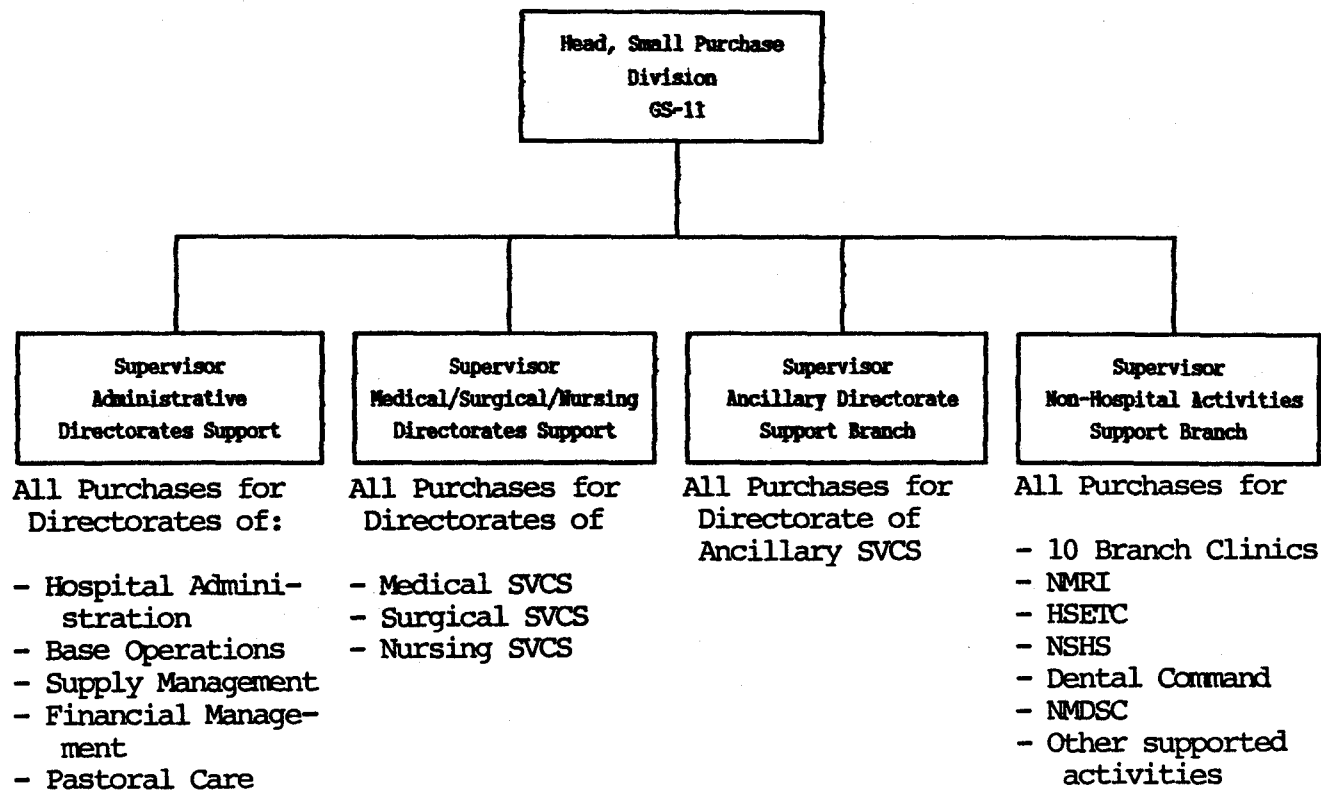


Figure 5. Customer Organization

- Buyer receives growth and experience in the procurement of multiple commodities.

Disadvantages include:

- Responsibilities may be too broad for a buyer to become expert. Economies are lost in product and vendor knowledge and commodity expertise.
- Does not provide an optimal framework for BPA and IDTC candidate identification because like commodities are procured by several branches.
- Duplication of efforts. Administrative supplies are procured by all divisions. Medical, Nursing and Ancillary items are procured by at least two divisions. This results in lost efficiency.
- Poor match of customer/commodity division of work.
- Poor utilization of personnel resources due to duplication of efforts and broad responsibilities.

The researcher has concluded that implementation of Alternative I which provides for a hybrid of commodity/customer support is the optimal organizational structure for workload management. This structure provides for a branch workload mix that is conducive to increased productivity, better customer support, and represents the most effective utilization of scarce personnel resources.

As discussed previously, a commodity focus will allow branch supervisors and their subordinates to obtain the specialized knowledge and expertise in specific product lines. Buyers can become familiar with the idiosyncracies of individual products, their uses, and pricing. Additionally,

market research becomes more efficient which develops a more competitive supplier base. Requisitions for the same items can be combined for efficiency and price economies, while repetitive buys can be more easily identified for the more administratively efficient BPA and IDTC programs. Research provided in Chapter II has indicated that buyers prefer procuring specific commodities versus a wide range of products. This makes a significant contribution to worker morale.

This structure is also designed to provide for a high level of customer-buyer interface with an emphasis on the clinical areas. Although the Medical/Surgical Branch is responsible for an entire range of medical and surgical items, the customer focus is not exceptionally large. This branch will serve all Medical and Surgical Clinics, the Central Sterile Supply Department which is a primary supporter of nursing wards, individual nursing wards themselves, and the Main Operating Room. A breakdown in the next section will illustrate how individualized support to these areas can be achieved. Commodities assigned to the Ancillary Support Branch also are in direct support of a limited number of customers. The Administrative Support Branch will be supporting the entire customer base. But the commodity expertise gained will result in many efficiencies. In actuality, direct customer support is achieved with hospital

administration areas who are the larger customers for administrative commodities.

By maintaining commodity specific equipment buys within each branch, instead of creating a separate branch as proposed in Alternative II, the Small Purchase Division will maintain its customer focus and make complex purchases available to all three branches. This concept will retain senior buyers within the branches for continuity, knowledge, expertise and assistance to junior buyers. This also allows junior buyers to perform some complex purchases as part of their career progression. Fluctuations in workload inherent in equipment related purchasing are better balanced among three branches. Furthermore, by electing to perform with three branches instead of four, the need for an additional supervisor and clerk is eliminated. Thus, precious personnel resources are conserved for full-time buying. Some consideration was given to having the proposed Equipment Support Branch report directly to the division supervisor but this is not recommended for reasons described.

Alternative III would provide the best structure for absolute buyer-customer interface but it is not feasible from a productivity, training, or quality standpoint. Efficiencies gained through product/customer/vendor knowledge and expertise cannot be achieved under this alternative. Duplication of efforts, poor utilization of resources, and low morale will result.

#### F. JOB SPECIALIZATION OF INDIVIDUAL PURCHASING AGENTS

After implementing the hybrid commodity/customer structure in Figure 3, the next step is to assign specific commodities to individual purchasing agents. Several attempts were made to obtain quantitative data that would represent requisition workload from specific customers. Due to the lack of a system to track and extract this type of information, only estimated data could be provided. The following workload assignment is based primarily on experience and qualitative approaches of purchasing work leaders and the researcher.

##### Medical/Surgical Support Branch

##### Buyer #1 (Senior) GS-1105-07:

- Main operating room items
- Anesthesia items
- Surgical ward items
- Equipment maintenance and repair services for these commodities

##### Buyer #2 GS-1105-05 or 06:

- Main operating room items
- Surgical wards items
- Sterile processing items

##### Buyer #3 (Senior) GS-1105-07: Surgery items in support of

- General surgery

- Plastic surgery
- Cardio-Thoracic surgery
- Surgical ICU
- Neurosurgery
- Orthopedics
- Podiatry

Buyer #4 GS-1105-05 or 06:

- Ophthalmology/Optometry
- Otorhinolaryngology (Ears, Nose, Throat)
- Urology
- OB/GYN

Buyer #5 GS-1105-05:

- General medical
- Pediatrics
- Emergency room

Buyer #6 (Senior) GS-1105-07:

Buyer #7 GS-1105-05 or 06:

Internal Medicine Specialties

- Allergy
- Cardiovascular
- Endocrinology
- Gastroenterology
- Hematology

- Oncology
- Infectious Disease
- Nephrology
- Rheumatology
- Pulmonary Medicine

Medical Wards and Medical ICU

Retroviral Disease

Senior buyer responsible for equipment, maintenance, repair services.

Ancillary Support Branch

Buyer #1 GS-1105-05 or 06:

Pharmaceuticals

Buyer #2 (Senior) GS-1105-07:

Laboratory and research items including equipment, maintenance contracts and repair services

Buyer #3 GS-1105-05:

- Pharmaceuticals
- Laboratory consumables
- Research consumables

Buyer #4 GS-1105-05 or 06:

Food Management and subsistence

Buyer #5 GS-1105-05 or 06:

Dental and oral surgery

Buyer #6 GS-1105-06:

Other ancillary items

- Physical and occupational therapy items
- Dosimetry items
- Environmental health
- Clinical investigations
- Medical training items
- Uniforms and clothing

Buyer #7 (Senior) GS-1105-07:

Radiology items - all commodities to include equipment, maintenance, and repair services.

Administrative Support Branch

Buyer #1 (Senior) GS-1105-07:

ADP equipment/maintenance/repair services

Buyer #2 GS-1105-05 or 06:

ADP items

Buyer #3 (Senior) GS-1105-07:

Office equipment/maintenance/repair services

Buyer #4 GS-1105-05 or 06:

Office products

Buyer #5 GS-1105-05:

Safety, security, facilities and base operating items

Buyer #6 (Senior) GS-1105-07:



Academic and public affairs items

Buyer #7 GS-1105-05:

Administrative supplies and all other non-medical items

Assignments to individual buyers have been based strictly on qualitative analysis due to the lack of solid quantitative data. Once this program is implemented, close monitoring must be accomplished to ensure that there is an equitable distribution of requisitions from both a volume and complexity standpoint. The researcher does not anticipate a major philosophical change, but a buyer may have to be reassigned to another branch based on the volume, complexity levels, or expertise required.

This program for workload management will result in major increases in productivity. Individual buyers have now been focussed to relatively narrow commodity lines and limited numbers of customers supported. This will result in a "flatter learning curve." Buyers will gain knowledge of product and vendor idiosyncracies much faster. Supervisors will assign requisitions to individual buyers for the same products and families of products on a regular basis. Identification of specialty vendors and multi-commodity distributors should become much easier. Statistics for repetitive buys to narrow groups of vendors can be recognized more easily. This data can be used to establish Blanket Purchase Agreements (BPAs). Effective use of BPAs can reduce

administrative workload, obtain more timely delivery, and facilitate the invoice management and bill paying process. These are all contributors to increased productivity.

This program will also enhance customer-buyer relations. For example, Buyers #1 and 2 in the Medical/Surgical Support Branch now have assigned responsibility for the main operating room, the surgical wards and related functions. Buyers can now visit these areas to gain a knowledge of customer needs and product uses. Regular visits to operating rooms, intensive care units (ICU), patient wards, etc., will provide the buyer with a sense of patient care responsibility. For example, ICU commodity buyers will realize that they can contribute to the ICU's success and ultimately the saving of human lives. Buyer sense of self-worth and organizational value will be heightened when these relationships are established.

Buyers should become excited about their direct role in patient care and support to specific physicians, nurses and other health care providers. They will perceive a greater responsibility level to providers when they have met them and understand more about their situations and patient responsibilities.

Equipment procurement, maintenance and repair services support should show improvement because these programs will be assigned to more experienced buyers with commodity/customer

familiarity. The resulting improved support will translate to better productivity and customer service.

Customers will benefit from this program as well. Customers will have one or more individuals who they can interface with directly for specific needs and problems. Communication lines will be opened to enhance mission accomplishment. This should foster teamwork between procurement personnel and providers. The goal of working together for the patient should replace the somewhat adversarial relationship that currently exists.

Questionnaire results provided in Chapter IV indicated that most award documents are signed by the small purchase supervisor. The researcher recommends the following breakdown for obligational authority.

- Small Purchase Division Supervisor - Signs open market and Federal Supply Schedule awards from \$10,000 to \$25,000
- Branch Supervisors - Sign open market and Federal Supply Schedule awards up to \$10,000
- Purchasing Agents - Make BPA calls up to \$25,000

Some consideration was given to allowing proven senior buyers to sign award documents up to \$10,000, however, this is not recommended because it does not allow for a quality control check. The researcher believes that supervisors should sign award documents in order to ensure quality of the final document, adequate purchase procedures and file documentation in accordance with laws and regulations.

## G. CURRENT TRAINING

All purchasing Agents have received the following external training:

1. Defense Small Purchase Course
2. BPA Procedures Course

The majority have not received the Contract Administration Course or the Basic Defense Contracts Management Course as mandated by DODD 5000.48. Formal courses cover various laws, regulations, terminology and related data, but don't provide real life situational training. This can only be obtained in the work environment under the direction of an experienced supervisor.

The recommended span of control displayed in Figure II, provides a 1 to 7 Supervisor/Buyer ratio. Thus, supervisors will be able to direct greater efforts toward nurturing junior buyers to become quality purchasing agents. Supervisors can provide more thorough reviews of documentation and concentrate more on teaching buyers about locating sources and utilizing Blanket Purchase Agreements and Federal Supply Schedules.

Many training courses exist in the procurement field that will provide buyers with specialized knowledge. Courses in federal supply schedule use and procurement of various commodities are readily available through federal and commercial sources. Local universities also offer procurement

related seminars and courses. Supervisors should encourage and direct buyers to obtain additional training and should specifically reward outstanding performers with funded training opportunities.

A well rounded training program that includes the Defense Small Purchase course, related government courses, specialized training, and dedicated on the job nurturing will provide several organizational benefits. These include: (1) improved buyer confidence (2) higher productivity due to increased knowledge and expertise (3) high quality of documentation (4) adherence to regulations (5) improved utilization of personnel and financial resources, (6) increased employee motivation and morale, etc.

Supervisors must be given the responsibility for subordinate training so management must ensure that supervisors receive all the course work subordinates do plus additional coursework in supervision and management. Courses offered by the Office of Personnel Management (OPM) and local universities can teach such skills in fundamental concepts of leadership, management, performance measures, rewards, discipline, training and worker relations. It is imperative that supervisors take courses of this nature since they are the key players in achieving productivity and measuring performance in the work environment.

Customer training is also critical to improving small purchase operations. Currently a non-mandatory training

session is presented monthly by the Customer Service Division to customer supply representatives, the majority of which are hospital corpsmen supporting clinical departments.

This course would become much more effective if it was provided bi-monthly and was designated as a mandatory course. Every supply representative should be in attendance. The course should involve many key members of the Procurement Department and should include the following topics:

- Requisition formulation
- Requisition flow
- Purchase descriptions
- Competition regulations
- Utilization of Federal Supply Schedules
- BPA Program
- Time constraints
- Personal inventory and reorder guidelines
- Sole source regulations and justifications
- Multiple sourcing

A second course must be developed strictly for professional health care providers and other specialists including physicians, nurses, laboratory specialists, etc. This course can be offered semi-annually and will provide more of a systems focus. The Procurement Department Head and Senior personnel should be the main presenters. Topics discussed should include:

- Procurement authority and NRCC support
- Competition regulations
- Sole source regulations and justification
- Commercial procurement vs depot stock system
- Standardization
- Multiple sourcing vs sole source
- Open forum to discuss problems

A course of this nature will educate both providers and procurement personnel on problems each face in mission accomplishment. Better understanding of each other's situation will foster teamwork and improved relations.

Training for supervisors, employees and customers is critical to mission accomplishment. A well developed and implemented program will result in higher productivity, improved relations and overall mission accomplishment.

#### **H. FUTURE TRAINING**

A long term goal of NNMCs Procurement Department should be to obtain higher procurement authority. Currently \$25,000 is NNMC's limit for open market buys. The next goal should be to obtain \$100,000 authority. This would bring more workload in-house and NNMC would not have to rely on an outside contracting activity for buys between \$25,000 and \$100,000.

Any procurement over \$25,000 is no longer small purchase and formal contracting procedures must be utilized. Trained

personnel are essential to qualify for increased authority. A systematic program must be implemented for senior buyers, supervisors and management level employees to obtain coursework in the following areas:

- Basic defense contracts management
- Advanced contracts management
- Contract administration
- Cost and price analysis
- Negotiations
- Contract law

Training senior staff members will benefit both the organization and the individuals. It will prepare the organization for increased purchase authority and provide staff members with the qualifications to move into contract specialist jobs and higher paygrades. A well-timed program for training and increased authority will help the organization retain corporate knowledge in medical procurement and provide a career ladder that could potentially range from GS-4 to GM-14. Both concepts will enhance mission accomplishment.

#### **I. PERFORMANCE MANAGEMENT**

The next step in the operational improvement process is to establish effective, obtainable goals which includes a program to measure performance against these goals.



Department goals shall include:

1. Creating satisfied customers through:
  - a. Increased productivity
  - b. Strengthened customer relations
  - c. Improved responsiveness
2. Performing procurement activities within the rules and regulations of government procurement through:
  - a. Adherence to laws and regulations
  - b. Proper purchase procedures
  - c. Complete and thorough purchase file documentation

Much of the research up to this point has incorporated several of Doctor Deming's points for Total Quality Management [Ref. 24]. In the area of performance management, Deming recommends that organizations eliminate numerical quotas for production and programs for management by objectives. In place of these functions he recommends that organizations should learn and institute methods for improvement and learn the capabilities of processes and how to improve them. He also believes that appraisal systems foster individualism and inhibit teamwork.

The researcher believes that the recommended organizational structure and job specialization program provides for innovation in process improvement and pride in workmanship, however, position descriptions and performance

standards must still be established for performance management.

Position descriptions are needed to describe duties, responsibilities and expectations of incumbents. Research provided in Chapter II indicated that performance standards are necessary to tie individual goals to organizational goals. Deming feels that standards encourage workers to perform at the lowest acceptable level. It is the researcher's conclusion that without standards, some workers just won't perform. This was evidenced in Chapter III which documented that a NNMC buyer went for a complete week without even making a single purchase. NNMC has the lowest output per capita when compared to organizations surveyed, as documented in Chapter IV.

The established system will encourage motivated employees to be all they can be but lesser achieving employees must be handed standards as goals to improve performance or serve as the avenue for disciplinary action and potential removal. Standards can be written so that even the lowest acceptable level will still result in mission accomplishment.

From data obtained in the Survey Questionnaire, the researcher devised position descriptions for Purchasing Agents, Procurement Clerks, and Branch Supervisors. Those are included in Appendix B. Performance standards were also developed for those positions. These are included in

Appendix B, also. Purchase agent performance standards must include the following measures:

- Productivity (Buys per unit of time)
- Quality of purchase file documentation
- Customer relations
- Utilization of proper procurement method
- Adherence to purchase procedures, laws, and regulations
- Timely processing consistent with need priority to facilitate anytime delivery
- Accuracy of award document

It is through those individual goals and measures that mission accomplishment will occur.

#### **J. BLANKET PURCHASE AGREEMENT (BPA) PROGRAM**

As discussed previously, the BPA is an administratively efficient method of accomplishing small purchases. Savings in paperwork and documentation are achieved as well as efficiencies in the bill paying process. Survey results recommended that BPAs be established for repetitive purchases of similar commodities available from more than one local supplier.

NNMCs first step in establishing an effective BPA program is to identify candidate items fitting the criteria listed above. The recommended program for job specialization will

foster this concept. Buyers specializing in a narrow line of commodities will be able to easily identify repetitive items available from local specialty and multi-product suppliers. Candidate items can be forwarded to the BPA administrator for BPA establishment. Once the agreement is established, calls can be placed in lieu of typing purchase documents. This saves time and administrative resources, thus contributing greatly to productivity.

The BPA administrator should also be active in seeking sources for BPAs. The mid-atlantic and northeastern parts of the United States are extremely rich in medical companies. The BPA administrator should make contact with numerous sources and obtain full catalogs and price lists. Having a BPA administrator is a luxury and this position can be utilized effectively in source development.

The BPA administrator must, however, become extremely active in maintaining the current BPA base. The incumbent must be concerned with the following measures:

- Vendor responsiveness
- Level of vendor usage
- Rotation of business
- NNMCs responsiveness in payment and other vendor relations
- Managing delegated call authority (Ensure delegated callers comply with procedures and have been trained. Revoke call authority from poor performers.)
- Determine why certain BPAs have no calls and recommend awarding business or termination

The largest problems experienced in BPA management appear to be with customers who have been delegated call authority. [Ref. 25] Poor record keeping and failure to forward request documents to receipt control for payment were the two most noteworthy observations. [Ref. 25] The BPA administrator must seek these problems and rectify them through training or by revoking call authority from the customer and returning workload to the Procurement Department.

Much of BPA program success lies with strong vendor relations and timely payment. If payment problems exist, vendors will be reluctant to maintain or enter into contractual agreements. The BPA administrator must be active in monitoring call procedures and invoice management processes.

The BPA administrator should publish a master list of all BPAs. This document should provide all pertinent information including commodity and individual product lines and pertinent vendor information. Current lists should be provided to each and every buyer within the department. Agents with this information can make awards faster due to reduced research time and reduced paperwork. Productivity gains will result.

Buyer specialization and aggressive program management by the BPA administrator will result in a stronger BPA program. Major improvements in productivity, responsiveness and invoice management will result.

## K. AUTOMATION

Acquisition and implementation of an automated procurement system is vitally needed to improve productivity, eliminate unnecessary duplication of efforts and assist with workload and performance management. Research provided in Chapter II documented that an automated procurement system will not only enhance productivity but contribute to social factors such as worker morale, job satisfaction and communications. Time savings and decreased operational expense were also documented.

An automated system can improve requisition processing procedures of individual agents by providing them with on-line buyer worksheets, access to supplier addresses and other information by single keystroke. Systems available also perform consolidation of requisitions, automatic vendor selection, automated preparation of documents and many other benefits.

Automation will benefit managerial and supervisory personnel as well. Performance, production and related statistical reports will assist them with trend analysis, problem identification, performance management and equitable workload distribution. Specialty reports for customers and vendor responsiveness analysis can also be developed.

Acquisition and implementation of an automated procurement system will result in a number of benefits for the Procurement Department.



## VI. CONCLUSIONS AND RECOMMENDATIONS

### A. INTRODUCTION

During this research effort, the author attempted to answer the primary research question: How can small purchase operations be improved at the National Naval Medical Center for increased productivity, improved quality of purchase documentation, and strengthened customer service? To answer this question, the author performed background research on related topics, completed a managerial problem search at the activity being studied and surveyed selected Navy procurement activities.

Upon completion of the research, the author determined that productivity, quality, and customer service could be improved by addressing four major subject areas. These included: (1) Organization and Personnel; (2) Training; (3) Procurement Techniques; and (4) Automation. These areas formed the basis for four subsidiary research questions: These included:

1. How can utilization of personnel resources be improved?
2. What levels of employee training both internal and external to the department are needed?
3. Can more efficient purchasing techniques such as the use of Blanket Purchase Agreements and Indefinite Delivery Type Contracts be more extensively used?



4. Where can automation be introduced and what types of systems exist?

The next section will answer these questions in detail.

## **B. SUMMARY OF ANSWERS TO RESEARCH QUESTIONS**

### **1. How Can Utilization of Personnel Resources be Improved?**

The author concluded that application of position management concepts for organizational design will result in improved utilization of personnel resources. This can be accomplished by applying the following techniques.

#### **a. *Redesigning the Organizational Structure of the Small Purchase Division.***

The current structure is organized into two buying teams of 13 and 10 purchasing agents, respectively. Each team is headed by a Lead Purchasing Agent (work leader) who reports to the division supervisor. This structure should be reorganized into three purchasing branches, each headed by a full supervisor and not a work leader. These branch supervisors would then report to the division supervisor. Each branch would employ approximately seven buyers.

This reorganization improves utilization of personnel resources in several ways. First, work leader positions have been converted to supervisors, therefore providing branch heads with total unit responsibility. Incumbents in these positions will now be given full

responsibility and accountability for the success of their respective units. This provides for increased autonomy and job enrichment for incumbents.

Second, the supervisory span of control has been reduced from an atypical arrangement of one division supervisor responsible for the work of 25 people to a structure that features a division supervisor, three branch supervisors and branches containing approximately seven buyers. The branch supervisor to buyer span of control has been reduced to 1 to 7. This span of control is consistent with standard management principles and industry trends. It allows for supervisors to concentrate increased efforts on monitoring employee performance and training of a smaller number of employees. Bottlenecks will be eliminated resulting in increased productivity. Quality of documentation can be monitored more clearly with a smaller span of control.

Third, clerical employees should be reassigned from the centralized "pool" to purchasing branches. This arrangement facilitates clerical responsibility and accountability. Clerks can be utilized for branch supervisor clerical responsibilities, therefore contributing to unit productivity. Supervisors also have increased control over clerical responsibilities and priorities. Clerks will have a unit identity and an opportunity for training and guidance under an experienced supervisor. By gaining close familiarity

with purchasing activities, clerks will gain knowledge for natural career progression to the purchasing agent series.

**b.     *Job Specialization and Workload Management***

Use of job Specialization and Workload Management techniques will improve the utilization of personnel resources. By narrowing their focus to specific commodities, buyers will obtain expertise on product idiosyncracies, vendor availability, and customers to be supported, much more rapidly than under the current system. This should result in faster processing of requisitions and contribute to increased productivity and timeliness of delivery. Job specialization contributes to better customer service by providing buyers with direct responsibility to areas using the specific commodities. Employee morale is improved as buyers see themselves rapidly becoming more proficient in making purchases and by recognizing their organizational value through direct customer support.

**c.     *Obligational Authority***

Formerly, work leaders were allowed to sign purchase documents up to \$2,500. By granting branch supervisors the authority to sign documents of up to \$10,000, the division supervisor and employees higher in the chain of command can concentrate more time on managerial functions. Periodic audits can be performed to measure documentation quality and adherence to laws and regulations.

**d. Performance Management**

The establishment of position descriptions will provide employees with duties, responsibilities and expectations. Performance standards are necessary to tie individual goals to organizational goals. Personnel performance will be enhanced by providing employees with measurable standards. Performance standards will serve as the mechanism to reward top performers and discipline poor performers. Utilization of personnel resources will be improved since employees will have legitimate goals to strive for. To obtain the desired performance towards attaining organizational goals, employees should be measured on: (1) quantity of output; (2) timeliness in request processing; (3) adherence to laws and regulations; (4) quality of documentation.

**2. What Levels of Employee Training Both Internal and External to the Department are Needed?**

The author concluded that efforts must be made to increase levels of on-the-job training and local in-service training. Formal courses do not cover such aspects as: (1) use of Federal Supply Schedules, (2) market research; (3) preparing documents; and (4) utilizing BPAs. An increased level of in-service training can result in more efficient operations and increased productivity. NNMC must also pursue compliance with DODD 5000.48. Agents must obtain more

formalized training in Defense Contracts Management and Cost/Price Analysis for effective job performance.

Monthly non-mandatory customer training sessions should be converted to bi-monthly mandatory sessions. This ensures that all supply representatives will be presented with identical policy and procedural information. A bi-monthly session will reduce time lost from the workplace and will allow for constructive change in presentations. Well organized training sessions will provide users with vital information to improve supply support to their units.

A special training session for professional providers should be required to inform them of the laws and regulations facing the Procurement Department. This session should also function as a forum to discuss topics such as: (1) small business requirements; (2) multiple sourcing vs sole sourcing; (3) commercial procurement vs Federal Stock System; (4) provider needs and problems; and (5) contemporary topics. A session of this nature is essential to opening communication channels between providers and procurement personnel.

**3. Can More Efficient Purchasing Techniques Such as the Use of BPAs and IDTCs be More Extensively Used?**

A large percentage of NNMCS awards are via BPAs, however improvement can still be achieved in this area. Only 54% of the established BPAs have had calls placed against them in the past six months and only 19% have had more than 10

calls during this period. Efforts must be made to disestablish or increase the usage of inactive BPAs. Following the implementation of job specialization, repetitive buys from local suppliers will be more identifiable for additional BPA establishment. The BPA is a proven method of increasing efficiency and the researcher is confident that many more candidates can be identified.

The BPA Administrator must monitor delegated call authority to customers. Customers complying fully with BPA guidelines can be granted higher call authority. This reduces the Procurement Department's workload and allows customers more control over their supply management functions. Poor performers should have call authority revoked to protect against illegal actions.

No data currently exists to support establishment of IDTCs. This can only be determined after implementation of commodity buying practices and utilization of management information systems.

#### **4. Where Can Automation Be Introduced and What Types of Systems Exist?**

Research and questionnaire responses indicated that many methods exist for automation of procurement practices. Studies have indicated that organizations that have implemented fully automated systems have enjoyed improvement in productivity and employee morale and have achieved cost

savings in personnel and administrative supplies. Various reports can be created by automated systems which can assist supervisors and managers with performance management and problem identification. The NNMC will enjoy all of these benefits by procuring and implementing a fully automated procurement system.

## C. CONCLUSIONS

### 1. Conclusion I

A reorganization of the Small Purchase Division and Purchase Support Division will contribute immensely to increased productivity, improved quality of purchase documentation and strengthened customer support. By increasing the number of supervisors, decreasing the supervisory span of control, reassigning procurement clerks, and incorporating programs for job specialization and performance management, the Procurement Department operations will be improved and customers will receive increased service and support.

### 2. Conclusion II

By increasing the levels of formal and on-the-job training, purchasing agents will perform job requirements much more effectively and efficiently. Productivity and quality improvements will be achieved.

Education of customers through mandatory training sessions and professional seminars will improve customer

knowledge and understanding of rules and regulations which govern acquiring material. These forums will provide the channels for increased communication and result in strengthened customer support.

### **3. Conclusion III**

The Procurement Department can increase productivity, strengthen customer support and gain many administrative efficiencies through increased emphasis on effective management of the BPA program. Identification of candidate items for additional BPAs, termination of inactive BPAs, increased usage of current BPAs and managing delegated call authority must be emphasized.

### **4. Conclusion IV**

By acquiring and implementing a fully automated procurement system, productivity increases, employee morale improves, and cost savings can be achieved. Reports and information for management will be much more accessible and useable.

## **D. RECOMMENDATIONS**

### **1. Recommendation I**

NNMC should reclassify two work leader positions (GS-8) and one purchasing agent position (GS-5/6/7) to three supervisor positions (GS-8/9).



## **2. Recommendation II**

NNMC should reorganize the Small Purchase Division from two buying teams to three purchasing branches each to be headed by a supervisor.

## **3. Recommendation III**

NNMC should reassign the two procurement clerks from the Purchase Support Division to two purchasing branches.

## **4. Recommendation IV**

NNMC should reclassify one purchasing agent position (GS-1105-5/6/7) to a procurement clerk position (GS-1106-4/5) and assign the incumbent to the third purchasing branch.

## **5. Recommendation V**

NNMC should implement a system of commodity/customer assignment at the branch level resulting in the following designation: (1) Branch One - Medical/Surgical Support Branch; (2) Branch Two - Ancillary Support Branch; and (3) Branch Three - Administrative Support Branch. Branch responsibilities were determined in Chapter V.

## **6. Recommendation VI**

NNMC should assign buyers responsibility for specific commodities as defined in Chapter V.

## **7. Recommendation VII**

NNMC should develop position descriptions and performance standards commensurate with mission accomplishment

and organizational goals. Proposed documents are provided in Appendix B.

**8. Recommendation VIII**

NNMC should ensure purchasing agents receive progressive formal training and pertinent levels of in-service training as previously documented.

**9. Recommendation IX**

NNMC should establish a bi-monthly mandatory training course for customer supply representatives and a semi-annual seminar for professional providers.

**10. Recommendation X**

NNMC should place increased emphasis on the management of the BPA program.

**11. Recommendation XI**

NNMC should develop a system to identify candidate items for IDTCs.

**12. Recommendation XII**

NNMC should pursue procurement and implementation of a fully automated procurement management system after identifying the system that is best suited for its use.

APPENDIX A

SMALL PURCHASE QUESTIONNAIRE

GENERAL INFORMATION

- A) Data on Individual Completing this Questionnaire

Name: \_\_\_\_\_  
Rank or Grade: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone: Com \_\_\_\_\_ AV \_\_\_\_\_

- B) Overall Purchase Authority for your Activity: \_\_\_\_\_

- C) Number of Activities Supported: \_\_\_\_\_

PERSONNEL ASSIGNED TO SMALL PURCHASE

A)    Series            Grade            Title            Number

- B) Please provide an organizational chart or a brief explanation of structural relationships. Data should show grade levels and supervisory, agent, and clerk spans of control.
- C) Please provide a Position Description and an example of Performance Standards for each series.
- D) At what grade levels do you assign signature authority on purchase orders? And what dollar levels?

WORKLOAD DATA

A) Please provide your last two semi-annual Summary of Actions Reports (DD Form 1057).

B) Please provide average annual workload data per small purchase agent

Number of Requisitions Processed \_\_\_\_\_

Number of Awards Produced \_\_\_\_\_

- Under \$2500 \_\_\_\_\_

- \$2500-\$25,000 competed \_\_\_\_\_

- \$2500-\$25,000 not competed \_\_\_\_\_

- Total \_\_\_\_\_

C) How is workload assigned to Purchasing Agents?

\_\_\_ By Commodity

\_\_\_ By Activity Supported

\_\_\_ By Complexity Level

\_\_\_ Combination (Please explain)

\_\_\_ Other (Please explain)

D) Average annual workload per procurement clerk (# documents typed and distributed). \_\_\_\_\_

E) Annual percentage of awards that were sole source. \_\_\_\_\_

F) Please provide a copy of your local sole source justification form.

## CONTRACTING TECHNIQUES

### I) Indefinite Delivery Type Contracts

A) Please provide the following data on the use of Indefinite Delivery Type Contracts (IDTCs):

are	Type	Total #	# that include	# that
<u>Multiyear</u>		<u>Active</u>	<u>more than one item</u>	

Requirements Contracts

Definite Quantity  
Contracts

Indefinite Quantity  
Contracts

B) Are IDTCs appropriate and/or effective for small purchase procedures?

C) Please explain your basic criteria for the establishment of IDTCs.

D) What is Industry's general opinion of IDTCs?

II) Blanket Purchase Agreements

- A) Please provide a copy of your latest semi-annual BPA report.
- B) Please explain your basic criteria for the establishment of BPAs.
- C) What are the determining factors when making a decision to establish a BPA in lieu of an IDTC or vice versa?
- D) What are your opinions on the use of IDTCs and BPAs and their effect on productivity, time savings, and cost savings?

### PRODUCTIVITY INITIATIVES

A) Have you implemented any new systems or techniques that have resulted in any of the following?

- ☐ Increased Productivity
- ☐ Improved Document Flow
- ☐ Reduced PALT
- ☐ Reduced Inventory
- ☐ Improved Utilization of Personnel Resources
- ☐ Timely Delivery
- ☐ Price Reductions
- ☐ Increased Customer Service

B) Please provide a brief explanation of your initiative and its results, or copies of pertinent reports documenting results.

AUTOMATION

A) To what extent is your small purchase activity automated?

- ☐ Manual System
- ☐ Procurement clerk with terminal
- ☐ Purchasing agents with terminals
- ☐ Completely automated small purchase system (Please provide system name and ADP approval authority)
- ☐ Other (Please specify.)

B) Please provide a brief description of your automated system including system capability, equipment, software, personnel resources, general system operation, productivity effects, and report production capability.



### TRAINING

A) Please provide the following:

<u>Course</u>	<u>Percentage of Personnel Completed</u>	<u>Series</u>
Defense Small Purchase		
Basic Defense Contracts Mgt		
Other (Please specify.)		

### CUSTOMER SERVICE

A) Does your activity have the capability to handle supply emergencies on a 24-hour basis? IF so, please provide information on the following:

Mission:

Hours:

Staff: (Series, Grade, Title, Number)

B) Do you provide any of the following tools to customers to increase ease and access to your operation?

- ☐ Computer terminals for direct requisitioning
- ☐ Computer terminals for on-line status access
- ☐ Hard copy status printouts
- ☐ Guidebook to supply operations (provide sample if possible)
- ☐ Periodic newsletter (provide sample if possible)
- ☐ Others (Please explain briefly)

C) Who screens for government sources of supply and/or alternate sources? How is this area staffed?

MEDICAL SUPPLIER INFORMATION

- A) Does your activity procure medical supplies? If so, please list the top five major suppliers (by number of annual purchase actions) in your region?

1)

2)

3)

4)

5)

FOR HOSPITALS ONLY

- A) What types of internal training programs do you have for supply operations:

\_\_\_ Training of supply corpsman

\_\_\_ Training for nurses and physicians

\_\_\_ Other

- B) Please give a brief outline of your training program(s).

- C) When competing for awards, are you using competitive specifications or "brand name or equal" methods?

- D) What has been your one single greatest Procurement Management Review (PMR) problem over the last three years?

- E) How did you solve it?



## APPENDIX B

### POSITION DESCRIPTION

#### SENIOR PURCHASING AGENT (TYPING) GS-1105

##### INTRODUCTION

This position is located in the Procurement Department, National Naval Medical Center (NNMC), Bethesda, MD. The Procurement Department serves several tenant commands and related activities by providing procurement services for a wide range of supplies, medical equipment and non-personal services. The purpose of this position is to procure supplies, non-personal services, equipment and other materiel through open market purchases, Federal Supply Schedules and established contracts, Blanket Purchase Agreements and imprest funds. Purchases are limited to \$25,000 on the open market and up to the maximum order limitation of applicable contracts.

##### Duties and Responsibilities

- Reviews requisitions for adequacy of purchase description and/or specification, authorized funding, required justifications and appropriate signatures.
- Determines proper procurement channel from mandatory sources, open market sources, schedules and contracts, blanket purchase agreements, imprest funds.
- Performs procurement functions in accordance with laws and regulations established in the Federal Acquisition Regulations, NAVSUPINST 4200.85 and other established regulations. Adheres to laws regarding competition, small business and socio-economic concerns, price reasonableness.
- Prepare award documents and requests for quotations.
- Places confirming and non-confirming purchase orders, delivery orders, oral orders, BPA calls and imprest fund purchases.
- Provides purchase file documentation to include sources solicited, pricing data, competition, price reasonableness, small business dissolution, and other required documentation.

- Performs data input for award documents.
- Purchases materiel ranging from simple to complex including unique medical equipment items manufactured to drawings and specifications; ADP and complex office equipment is also procured.
- Purchases services ranging from maintenance and repair to technical and professional which may require a statement of work.
- Evaluates bids, performs negotiations, and prepares modifications when necessary.
- Combines like requisitions for price and administrative economies.
- Places attention on customer required delivery dates and negotiates with vendors, accordingly.
- Performs procurement for rentals and leases of equipment.
- Assists supervisor with training and provides guidance to junior buyers.
- Other duties as assigned.

## Factors

### 1. Knowledge Required by the Position

- Must have an understanding of acquisition laws and regulations; common business, industrial and trade practices; pricing techniques; technical terminology; and knowledge on specialized sources of supply.
- Knowledge of basic computer data entry techniques is preferred, however on-the-job training can be provided.
- Successful completion of the Defense Small Purchase Course once every three years.
- Ability to communicate orally and in writing with vendors, customers and other business contacts.

### 2. Supervisory Controls

- Works independently and carries assignments to the point of final approval. Supervisor is generally available to provide guidance and assistance on atypical problems. Formal documents receive a general review for completeness, accuracy and conformity to appropriate laws and regulations.

### 3. Guidelines

- Guidelines include acquisition regulations issued on the federal, command, and local level. Considerable judgement is necessary in selecting and applying appropriate regulations and special provisions dictated by the specific procurement situations.

### 4. Complexity

- From requisitions assigned, procures supplies/services. Reviews requisitions to determine completeness, signature, purchase description, funding authorization and appropriate justifications. Determines proper procurement channel and performs appropriately within established thresholds. Includes all appropriate clauses and obtains required approvals.
- Procurements are made for complex instruments, equipment and material with unique specifications. Makes independent decisions regarding prioritization or work, selection of sources, and method of solicitation. Makes awards based on regulations and established criteria.

### 5. Scope and Effect

- Timely and accurate purchases contribute to the overall effectiveness of healthcare delivery at the NNMC and associated activities enabling them to meet workload requirements and maintain mission capabilities.

### 6. Personal Contacts

- Telephone and personal contacts are made with vendors, customers, command personnel supervisors, co-workers, technical and legal personnel.

### 7. Purpose of Contacts

- To obtain price quotations, obtain technical information, negotiate pricing and related information, clarify requests, discuss problems and obtain guidance on atypical or unusual situations.

8. Physical Demands

- The work is predominantly sedentary. Consists primarily of sitting, however walking, standing, bending and carrying of light items may be required in pulling files, researching item histories and locating references.

9. Work Environment

- Work is performed in an office setting which is adequately lighted and climate controlled.

PERFORMANCE MEASURES

SENIOR PURCHASING AGENT

1. Performance Element

Productivity - Processes requisitions from receipt through signature by contracting officer.

Performance Standard

Exceeds Fully Successful: Makes eight (8) awards per day.

Fully Successful: Makes five (5) to seven (7) awards per day.

Marginally Successful: Makes four (4) awards per day.

2. Performance Element

Timely Processing - Processes requisitions within time frames established by priority

Priority Three (3) - two (2) days

Priority Six (6) - five (5) days

Priority Thirteen (13) - ten (10) days

Performance Standard

Exceeds Fully Successful: One (1) to two (2) awards not placed in accordance with priority/timeframes, per month.

Fully Successful: Three (3) to four (4) awards not placed in accordance with priority/timeframe, per month.

Marginally Successful: Five (5) awards not placed in accordance with priority/timeframe per month.



### 3. Performance Element

#### Purchase Documentation:

Ensures all awards are made in accordance with applicable regulations established in FAR, DFAR, NAVUPINST 4200.85 etc. Where applicable, ensures documentation of competition or sole source, price reasonableness, small business dissolutions, etc.

#### Performance Standard

Exceeds Fully Successful:

One (1) documentation failure per month.

Fully Successful:

Two (2) to three (3) documentaion failures per month.

Marginally Successful:

Four (4) documentation failures per month.

### 4. Performance Element

#### Customer Relations -

Provides courteous and helpful assistance to customers.

#### Performance Standard

Exceeds Fully Successful:

One (1) valid customer complaint per month.

Fully Successful:

Two (2) valid customer complaints per month.

Marginally Successful:

Three (3) valid customer complaints per month.

### 5. Performance Elements

Selects Proper  
Procurement Channel

Performance Standard

Exceeds Fully Successful:	One (1) award not placed through proper channels per month.
Fully Successful:	Two (2) to three (3) awards not placed through proper channels per month.
Marginally Successful:	Four (4) awards not placed through proper channels per month.

6. Performance Element

Document Preparation  
by Computer Data Input

Completes award by entering appropriate data for DD Form 1155 completion.

Performance Standard

Exceeds Fully Successful:	One (1) to two (2) documents per week contain one or more errors.
Fully Successful:	Two (2) to three (3) documents per week contain one or more errors.
Marginally Successful:	Four (4) documents per week contain one or more errors.

## POSITION DESCRIPTION

### BRANCH SUPERVISORY PURCHASING AGENT GS -1105

#### INTRODUCTION

This position is located in the Procurement Department, National Naval Medical Center (NNMC), Bethesda, MD. The Procurement Department serves several tenant commands and related activities by providing procurement services for a wide range of supplies, medical equipment and non-personal services. The purpose of this position is to supervise employees in their daily activities consisting of procurement of supplies, medical equipment, non-personal services and other materiel through open market purchase, Federal Supply Schedules and established contracts, blanket purchase agreements, and imprest funds. Purchases are limited to \$25,000 on the open market and up to the maximum order limitation of applicable contracts. Incumbent serves as a contracting officer for open market purchases up to \$25,000.

- Plans, schedules, assigns and directs the work of all subordinates. Performs these functions on a daily, weekly, and monthly basis to ensure deadlines, priorities and requirements specified by customers and higher authority are met.
- Performs complete quality control review of award documents produced by subordinates, ensuring completed work is in compliance with procurement regulations, customer delivery dates, etc. Signs awards of up to \$25,000.
- Determines resources required for mission accomplishment including: personnel, materiel, equipment, supplies, and facilities.
- Coordinates closely with representatives from supported units concerning matters of work accomplishment, priorities, methods and procedures.
- Provides training to unit employees including methods, procedures and explanation of work requirements.
- Responsible for ensuring unit productivity. Assigns all incoming work taking into account seniority, capability of employees, and task difficulty. Monitors progress of subordinates.

- Prepares workload and unit performance reports for higher level management.
- Informs next level supervisor of vacancies, fluctuations in workload or other circumstances affecting resource management.
- Performs personnel management functions for the unit including interview, selection, appraisal, discipline, reward, promotion, reassignment, position descriptions and performance standards.
- Advises employees of performance standards and informs them of their progress in meeting these standards.
- Communicates regularly with subordinates including information, advice, counseling and related guidance.
- Controls attendance and sick leave for the unit typically including approval of sick and annual leave and vacation schedules.
- Maintains resource center for the unit including appropriate quantities of current regulations, laws, directives, source material, and vendor lists.
- Supervises all computer data entry for status and tracking. Supervises distribution of award document.
- Writes correspondence and messages pertaining to the unit.
- Places procurements for very complex medical supply, equipment and service requirements.
- Verifies legality of unusual purchase requests with appropriate legal counsel.
- Implements other personnel programs such as EEO, Safety, Grievance, etc.
- Supervises the following employees:
  - Two (2) Purchasing Agents GS-1105-07
  - Three (3) Purchasing Agents GS-1105-06
  - Two (2) Purchasing Agents GS-1105-05
  - One (1) Procurement Clerk GS-1106-05

- Reviews and distributes requisitions ensuring appropriate technical review and proper recording into the computer tracking program.
- Researches manuals for correct procedural information concerning purchase methods to be used, proper formats for report, and submission schedules.
- Personally places or directs immediate ordering of emergency needs and ensures that the most expeditious source and shipment modes are selected.
- Other duties as assigned.

### Factors

#### 1. Knowledge required by the position

- A comprehensive knowledge of government purchase procedures and regulations including understanding of the Federal Acquisition Regulation (FAR), NAVSUPINST 4200.85 and related regulations.
- Knowledge of civilian personnel management procedures including rules pertaining to direction of subordinates, appraisal, discipline, timekeeping, and related matters.
- Defense Small Purchase Course and Basic Management of Defense Contract Course are to be completed once every three years.
- Acceptable level of skills in computer data entry and operation of office equipment.

#### 2. Supervisory Controls

- Works independently under general supervision of the Small Purchase Division Supervisor for objectives, goals and guidance on atypical situations.

#### 3. Guidelines

- The incumbent utilizes laws and regulations including the FAR and NAVSUP 4200.85. Local purchase procedures and directives are complied with. Determines applicability of guidelines to specific situations.

4. Complexity

- Must be thoroughly knowledgeable of small purchase procedures with an understanding of formal contracting procedures. Decisions and directions must be issued regarding sources and channels of procurement. Supervisory responsibilities must be performed in accordance with civilian personnel management guidelines.

5. Scope and Effect

- Ensures unit productivity, processing timeliness, documentation quality and related functions are at sufficient levels to effectively support customer activities and comply with laws and regulations.

6. Personal Contacts

- Contacts are with supervisor, subordinates, command personnel, customer, technical and legal personnel and others involved in the procurement process.

7. Purpose of Contacts

- Contacts are made to discuss procurement matters, ensure uninterrupted medical logistic support, resolve difficulties and provide assistance.

8. Physical Demands

- The work is predominantly sedentary. Consists primarily of sitting, however, walking, standing, bending, and carrying of light items may be required in pulling files, researching laws and regulations and locating references.

9. Work Environment

- Work is performed in an office setting which is adequately lighted and climate controlled.

## PERFORMANCE MEASURES

### BRANCH SUPERVISORY PURCHASING AGENT

#### 1. Performance Element

Unit Productivity - Ensure subordinates produce awards in accordance with established productivity standards.

##### Performance Standard

Exceeds Fully Successful: Unit processes 98% of requisitions received to awards, quarterly.

Fully Successful: Unit processes 95% to 97% of requisitions received to awards, quarterly.

Marginally Successful: Unit processes 94% of requisitions to awards, quarterly.

#### 2. Performance Elements

Unit Procurement  
Administrative  
Lead Time (PALT)

Ensures timely processing of requisitions by priority designator.

Priority Three (3) -  
Average unit PALT - Two (2) days

Priority Six (6) -  
Average unit PALT Five (5) days

Priority Thirteen (13) -  
Average unit PALT Ten (10) days

##### Performance Standard

Exceeds Fully Successful:	Average PALTs improve upon standard by one (1) day, quarterly.
Fully Successful:	Average PALTs meet standards, quarterly.
Marginally Successful:	Average PALTs exceed standards by one (1) to two (2) days, quarterly.

3. Performance Element

Unit Quality of  
Purchase Documentation

Ensures all awards are made in accordance with applicable regulations established in FAR, DFAR, NAVSUPINST 4200.85 etc. Where applicable, ensures all documentation includes record of competition, sole source, price reasonableness, small business dissolution, etc.

Performance Standard

Exceeds Fully Successful:	98% of awards placed by unit display adequate quality of purchase documentation, quarterly.
Fully Successful:	95%-97% of awards display adequate quality of documentation quarterly.
Marginally Successful:	94% of award display adequate quality of documentation, quarterly.

4. Performance Element

Accuracy of Award Documents

Ensures documents prepared by subordinates are accurate and adequately completed.



Performance Standard

Exceeds Fully Successful:	98% of documents reviewed/signed are error free, quarterly.
Fully Successful:	95-97% of documents reviewed/signed are error free, quarterly.
Marginally Successful:	94% of documents reviewed/signed are error free, quarterly.

5. Performance Element

Personnel Management  
Functions

Monitors position management, selection, training, appraisal, rewards, discipline.

Performance Standard

Exceeds Fully Successful:	Performs appropriate actions prior to deadline on most occasions.
Fully Successful:	Performs appropriate actions as required on deadline.
Marginally Successful:	Fails on two (2) occasions to meet deadline for required actions, quarterly.

## POSITION DESCRIPTION

### PROCUREMENT CLERK (TYPING) GS-1106

#### INTRODUCTION

This position is located in the Procurement Department, National Naval Medical Center (NNMC), Bethesda, MD. The Procurement Department serves several tenant commands and related activities by providing procurement services for a wide range of supplies, medical equipment and non-personal services. The purpose of this position is to provide clerical and basic procurement support to the Procurement Department.

#### Duties and Responsibilities

- Enters procurement data directly from purchase requests into the automated computer tracking system.
- Provides distribution services to include: reproductions, collating, and distribution of purchase/delivery orders and receipt documents to contractors, requesting departments, the receiving activity and the financial management activity.
- Types letters, messages, reports, tabulated data, memoranda and related documents from handwritten drafts.
- Develops and maintains various office files for the Supervisor and Purchasing Agents including: Purchase/Delivery orders, General Services Administration Contracts, Blanket Purchase Agreements, and bidders mailing lists. Files data alpha-numerically or in accordance with established system.
- Researches customer requests for status of requisitions.
- Makes BPA calls. Places orders by telephone with vendors under the authority of Blanket Purchase Agreements. Enters orders into the automated computer tracking system to produce final BPA call records.
- Types purchase/delivery orders from handwritten drafts.
- Answers telephone, takes messages, greets visitors

providing general information or directs inquiries to proper person.

- Acts as timekeeper.
- Other duties as assigned.

### Factors

#### 1. Knowledge Required by the Position

- A qualified typist is required.
- Knowledge of basic computer data entry techniques and word processing is preferred, however, on-the-job training can be provided.
- Knowledge of English grammar, spelling and punctuation to ensure grammatical correctness of correspondence being sent to a variety of activities.
- Practical knowledge of procurement procedures, operations and regulations of agencies involved.
- Knowledge of forms, formats, typing policies and terminology of the units for which the work is done.

#### 2. Supervisory Controls

- The Purchasing Branch Supervisor provides initial training and guidance giving specific instructions on procedures to be used.
- Incumbent attends all training sessions provided to purchasing personnel and performs work independently after initial training period.
- Priorities, deadlines and emergencies are established by the Purchasing Branch Supervisor.
- Completed work is reviewed for conformance to established requirements. Output is spot checked for accuracy.

#### 3. Guidelines

- Typing and data entry functions must be performed in accordance with current procurement regulations, system software applications, departmental instructions and related references.

- Incumbent uses judgement in preparing correspondence, forms, and data entries. Accuracy is critical.

#### 4. Complexity

- Accurate data entry is required to ensure procurement documents are appropriately prepared and processed. Accurate data entry is further required to ensure accurate managerial and statistical reports. Identifying discrepancies is essential.
- Distribution duties require review of each document and determination of distribution method.
- Knowledge of procurement regulations is essential for preparing purchase/delivery orders and BPA calls.

#### 5. Scope and Effect

- The purpose of the work is to provide data entry, typing, distribution and related clerical procurement assistance and place BPA calls. Work must be performed in an accurate, timely, and reliable manner to ensure uninterrupted medical logistic support. Preparation and distribution of procurement documents and related material facilitates the work of the purchasing agents.

#### 6. Personal Contacts

- Personal contacts are with purchasing agents, supervisors, command personnel and vendors. Telephone contacts are with vendors and customers.

#### 7. Purpose of Contacts

- Purpose of telephone contacts is to provide general and procurement information, take messages, direct calls and place BPA orders. Personal contacts are for purposes of verifying procurement information, correcting errors and facilitating work.

#### 8. Physical Demands

- Work is sedentary. Consists primarily of sitting, for typing and data entry. Walking, standing, bending and carrying of light items may be required to perform filing and distribution functions.

#### 9. Work Environment

- Work is performed in an office setting which is adequately lighted and climate controlled.

## PERFORMANCE MEASURES

### PROCUREMENT CLERK

#### 1. Performance Element

Performs Computer  
Data Input

Enters procurement data from  
requisitions into the  
automated procurement tracking  
system.

##### Performance Standard

Exceeds Fully Successful:	Makes two (2) errors per week in data input.
Fully Successful:	Makes three (3) to four (4) errors per week.
Marginally Successful:	Makes five (5) errors per week.

#### 2. Performance Element

Distribution Services

Reproduces, collates, and  
distributes documents

##### Performance Standard

Exceeds Fully Successful:	Makes two (2) distribution errors per week.
Fully Successful:	Makes three (3) to four (4) errors per week.
Marginally Successful:	Makes five (5) errors per week.

#### 3. Performance Element

Filing Duties

Files award documents,  
schedules, mailing lists,  
etc.

##### Performance Standard

Exceeds Fully Successful:	Two (2) filing errors per week.
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Fully Successful:

Three (3) to four (4)  
errors per week.

Marginally Successful:

Five (5) errors per week.

4. Performance Element

Customer Relations -

Provides courteous and  
helpful assistance to  
customers.

Performance Standard

Exceeds Fully Successful:

One (1) customer  
complaint per month.

Fully Successful:

Two (2) to three (3)  
customer complaints per  
month.

Marginally Successful:

Four (4) to five (5)  
customer complaints per  
month.

5. Performance Element

Typing

Typing letters, messages,  
memoranda, reports,  
statistics

Performance Standard

Exceeds Fully Successful:

One (1) error per  
document on average.

Fully Successful:

Two (2) to three (3)  
errors per document.

Marginally Successful:

Four (4) errors per  
document.

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